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ABSTRACT

The project's purpose of eliminating major obstacles blocking career advancement of human service paraprofessionals was achieved through a developed model allowing new options for upgrading workers in three occupations: Addiction services, child development, and occupational therapy. The policies and practices of educational institutions, employers, unions, professional associations, credentialling bodies, and others hindering the upgrading of low-level employees were investigated and, where possible, altered. The major thrusts were to make credentials more relevant to job duties, give greater credit for work and life experience, foster mobility among human service occupations, and make it possible for paraprofessionals to obtain education and training while fully employed. In this report, chapter 1 covers the activities involved in the project's development of a model for paraprofessional career advancement, along with methods and processes used in implementing the model. Chapter 2 discusses the following generic items for consideration when implementing an upgrading program: Consortium approach, task analysis for job structuring and curriculum development, preceptors, credentials and career development, program costs, and evaluation. The appendix, covering the major portion of the document, contains detailed descriptions of the project's attempts to implement the model in five occupations--addiction worker, child development worker, occupational therapist, public health nurse, and teacher--two of which were not successful. The description of each model's process is intended to assist those interested in replicating the model. (SH)

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DEVELOPING NEW MODELS FOR PARAPROFESSIONALS IN HUMAN SERVICE OCCUPATIONS

Final Report of a Five-Year
Demonstration Project

December 1976

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The National Child Labor Committee is a private, voluntary agency dedicated to helping increase the effectiveness of those working directly with children and youth, by conducting research, planning, staff training, technical assistance, information services, and demonstration programs for agencies and institutions throughout the country.

DEVELOPING NEW MODELS FOR PARAPROFESSIONALS
IN HUMAN SERVICE OCCUPATIONS

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FOREWORD

The National Committee on Employment of Youth of the National Child Labor Committee. carried out one of the first demonstration training programs for paraprofessionals from 1964-66, with financial support from the U.S. Department of Labor's Experimental and Demonstration Program. Three years later, at the request of the Labor Department's Office of Research and Development, NCLC conducted a follow-up study of a sampling of the graduates which indicated highly satisfactory job performance, regular salary increases, and a stable employment pattern.

NCLC's study confirmed that the paraprofessionals recruited from among the poor brought important assets to human service agencies. According to the reports of executives and supervisors, the maturity and accumulated life experience of paraprofessionals--combined with their first-hand knowledge of the client population--were important both in establishing relations with the client population and then in gaining client acceptance for the agency's service. (To perform as well in this regard, the supervisors noted, young college graduates needed a great deal more experience as well as special training.)

The study also made clear that while many paraprofessionals have the ability and the ambition to move into higher level positions, credentials and educational requirements close these to the vast majority. The report noted:

> A new generation of demonstration projects addressed to ways of upgrading paraprofessionals is urgently needed. The values of employing them have been amply demonstrated. What is timely now is to experiment with various approaches--field by field--for achieving career advancement. Tested out should be a variety of experiences after paraprofessionals have been hired, including experiments in changes in agency structures and policies, job design and assignments and in-service training.*

In July 1970, the Office of Research and Development of the U.S. Department of Labor's Manpower Administration carried forward its development of new approaches to broadening entry opportunities to professional fields by awarding a contract to NCLC to develop and test ways in which paraprofessionals in five selected human-service occupations could be upgraded by (a) creating new routes to credentials; (b) modifying education and experience requirements for obtaining these credentials and (c) reducing the need for credentials.

This experimental and demonstration project aimed at eliminating major obstacles blocking career advancement and threatening to trap may paraprofessionals in a

*National Committee on Employment of Youth, Where Do We Go From Here? (NCLC: New York, December 1969)

job ghetto. It sought to develop a range of options for advancement which were cheaper, shorter, more relevant to both the nature of the jobs to be performed and to the background and career objectives of the paraprofessionals. To accomplish this, the policies and practices of employers, educational institutions, unions, licensing bodies, civil service systems and professional associations were analyzed and, if possible, changed.

This report is an effort to pull together those elements in the various programs which led to success or failure of the models. An attempt is also made to determine why three models succeeded and two failed.

Many people played key roles in bringing these programs to fruition. We should like to thank the staffs of employing agencies, colleges, unions, professional associations, and the literally hundreds of others, including the students, for their continuing support and assistance. It would be impossible in this space to give each the recognition deserved; however, a few people must be mentioned individually:

--Anita Vogel who served as Project Director from July 1970 to November 1972, who was instrumental in setting forth many of the concepts and procedures we have followed, and who, as Director of the Human Services Department of LaGuardia Community College, has enabled two of our program models to see the light of day.

--Harold Cohen and Lee Filerman, Directors of the Addiction Services and Occupational Therapy Programs, respectively, who pulled their programs through seemingly insurmountable obstacles to successful implementation.

--Richard McAllister, Project Officer of the U.S. Department of Labor who has always fostered our efforts and who has shown extraordinary patience in waiting for the results of our project to materialize.

DEVELOPING NEW MODELS FOR PARAPROFESSIONALS
IN HUMAN SERVICE OCCUPATIONS

CHAPTER I

DESIGN AND PROCESS

A. Introduction

The training and utilization of relatively unskilled, low-income workers in public services is not a new phenomenon. As early as the seventeenth century, the Elizabethan Poor Laws included a provision that those unable to find employment and who were dependent upon the state, be placed in workhouses and trained to perform "community impovement" work.

In the United States, an organized program based on this concept was first developed under the Depression programs of the 1930's. In the National Youth Administration, for example, unemployed in-school and out-of-school youth were trained and placed, as non-professionals, in the fields of health, education, recreation, welfare, corrections, and in the arts. When the N.Y.A. was discontinued in 1943, there was no real move to continue the programs; the idea, however, had been implanted.

Ten years later, in 1953, the Ford Foundation funded several programs and studies aimed at providing employment to untrained personnel in several school systems, assisting teachers by taking over their nonprofessional functions. These programs were not too successful due, mainly, to the resistances of the teachers themselves.

Many less ambitious projects followed, but no major breakthrough was made until the early 1960's, when the employment of auxiliary personnel in human services rose sharply because of the availability, as part of the Administration's overall "War on Poverty," of large amounts of Federal funds from the Office of Economic Opportunity, the Office of Education, and the Department of Labor.*

Emanating from the Scheuer Amendment to the Economic Opportunity Act of 1966, and building on the prior legislation, the nationwide New Careers program was an exploration of the potential contribution to public services that can be made by capable adults from poverty backgrounds. This new round of programs differed from the Depression programs in several significant ways:

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*During this period the Department of Labor funded an experimental and development training program for paraprofessionals conducted by NCLC. See Final Report, "A Demonstration On-the-Job Training Program for Semi-Professional Personnel in Youth Employment Programs," December 1965.

1. Based on an increased awareness of the extent of human needs and limited existing services, they were directed toward providing essential human services for all.

2. They stressed the involvement of low-income workers as participants, instead of as recipients, in the process of problem-solving.

3. They tried to take a more systematic approach toward training, role development, and the institutionalization of programs.

4. They sought to shift from the concepts of creating entry-level jobs leading nowhere to the concept of career development, with training available at each step for those who sought and merited upward mobility.

Results to date give evidence that education, training, and on-the-job experience can produce a valuable new supply of paraprofessionals, many possessing the ability and ambition to advance into more responsible jobs with higher status and pay.

Thousands of paraprofessionals were recruited from the nation's poor and minority groups and employed as human-service workers in the fields of health, mental health, welfare and education. These new jobs, however, created a "second generation" problem of considerable magnitude: academic obstacles blocking their career advancement trapped many of these paraprofessionals in another ghetto--a job ghetto.

With scarcely any exceptions, employers of human-service workers set the baccalaureate degree as a minimum requirement for career advancement. Some agencies provide for recognizing individuals with "equivalent experience." Since they have not defined "equivalent," however, it is difficult to plan for career advancement.

In New York City in the 1960's, for example, a paraprofessional obtaining a job through the Scheuer program was eligible for half-time financial support in associate degree programs if he was enrolled as a fully matriculated student. The most obvious flaw in this program was that employers of paraprofessionals had no jobs for which the associate degree was a requirement; few career ladders specified it. Further, the program gave access only to tuition-free courses, i.e., City University daytime programs, and then only if participants carried enough credits to be matriculated students. Most employers were not able to pay for education and released time for their workers for such a large part of the work week, and employees in marginal jobs could not finance their own education.

Evening courses were excluded from consideration because the colleges charged tuition for them, and evening matriculation courses which carried tuition-free status depended upon accumulating as many as 30 credits with a rather high scholastic index. Further, many of the career-related courses (e.g.,nursing) were not offered at night.

Most public colleges, although expressing interest in the adult student, were focusing on the flood of recent high school graduates. Few colleges had either the funds or the personnel to design or conduct programs for mature, employed people seeking upgrading. Curricula were geared to the young students who brought with them none of the life experience of the older employed worker. Adult programs were more concerned with avocational interests than with vocational pursuits.

In summary, the options open to the adult paraprofessional seeking advancement and professional status were not satisfactory. What was needed for paraprofessionals was an option which built on and gave credit for their life experiences, enabling them to qualify for advanced positions in less time, at a lower cost, and in a more meaningful way. To develop this alternative required a design that analyzed employment opportunities and requirements, developed new types of educational programs, and devised alternative routes to credentials.

In July 1970, with a contract from the U.S. Department of Labor, the National Child Labor Committee launched this demonstration project to develop changes in the educational system and in the qualifications and credentialing processes to help employed paraprofessionals advance in five different human-service occupations to intermediate and then professional positions. Its thrusts were to make credentials more relevant to job duties, give greater credit for work and life experiences; foster mobility and transferability of skills and knowledge among human-service occupations; and make it possible for paraprofessionals to obtain vocational education while fully employed.

The experience obtained in the course of developing and operating these programs can be useful for establishing similar programs in other occupations and in other communities.

B. Criteria and process for Selecting Occupations and Collaborators

In our attempts to develop models in several occupations, we started with three major premises:

1. Paraprofessionals perform well in human-service occupations and have the potential to function as professionals. They bring a quality to their work which many professionals do not have--a knowledge and understanding of their community and/or particular group.

2. Regardless of their ability and ambition, paraprofessionals have been locked into low-level jobs by academic and professional credential requirements as well as by dysfunctional institutional personnel practices.

3. It is possible to remove or circumvent the structural blocks and to upgrade paraprofessionals to professional status in an effective and efficient manner by providing credit for work and life experience; by using training designs based on task analysis and work competency; and by providing formal education at the job site.

From these premises we developed basic criteria for building our models:

1. Educational institutions had to be willing to design and use: (a) alternative routes to credentials more relevant for adults in human-service occupations, that were shorter and therefore more economical than conventional programs; (b) a work-study approach; (c) close ties with the employers; (d) special curricula when necessary; (e) academic credit for what the worker has learned, either in academic settings or elsewhere, and for work experience; and (f) educational facilities on a year-round basis for maximum use of time and resources.

2. Employers had to be willing to base their selection on the skills and knowledge needed for competent performance, provide some released time for education for the paraprofessionals; arrange for special staff assignments for training purposes; and assign qualified supervisors to the paraprofessionals.

3. Academic institutions and employers both had to be flexible and willing to consider each other's and the workers' problems; to use work sites as learning places where supervisors give in-service training accredited by the academic institutions; and to accept and participate in a coordinating body which would develop policy, evaluate program elements, and resolve problems.

4. Paraprofessionals had to be willing to make a significant contribution of their own in time and energy.

5. The occupations selected should permit credentialing at both the associate and baccalaureate levels with concommitant raises in status and pay.

6. The occupations had to have significant numbers of workers at dead-end, low-level jobs, and a reasonable number of unfilled higher-level jobs which required a credential.

7. Labor unions and professional organizations had to be willing to work with us in the development and conduct of the programs.

8. Collaborators had to agree to use task analysis as the basic methodology for linking work experience and the educational curriculum.

9. Each program had to meet a sufficiently strong need of the labor market to attract the interest of funding sources, and the cost of establishing models had to be within available resources.

NCLC staff felt that several occupations should be chosen in related fields to permit greater impact with limited resources. We also felt that there should be a wide range of occupations for comparative purposes. Thus, some occupations might involve a single employer and/or academic institution, while others would involve a consortium of employers and/or academic institutions; some occupations would be in the public sector (Civil Service) while others would be in the private sector. In one occupation there might be a dominant union, in another a strong professional association, in a third, neither; etc.

To help us select occupations, NCLC organized an Advisory Committee composed of experts on manpower utilization, research, and training, all experienced with programs for paraprofessionals in human-service occupations. With the assistance of the committee, NCLC began exploring occupational fields. This process included:

--Examination of occupational data available from various bureaus and government agencies, professional associations, state licensing agencies, state and local codes and regulations, existing and pending legislation, to determine numbers of persons employed and needed in various occupations, and what the long-term trends seemed to be in these occupations.

--Reviewing the literature, including government periodicals and publications, professional bulletins and magazines, data retrieval systems and related books and articles, to draw upon experiences of other projects and models.

--Personal interviews and consultations with representatives of major human-service employers, unions, state and local Civil Service organizations, professional and occupational associations, licensing bureaus, and academic institutions, to identify promising areas as well as potential roadblocks within various occupations.

--Consultation with our Advisory Committee, first as a group and then with individual members, as needed, to provide guidance and direction in our efforts.

--Discussions with individuals and small groups of paraprofessionals in different occupations to ascertain what they saw as their needs for career advancement.

Through this process, we were able to identify more than 25 occupations warranting further consideration.

Narrowing our choice to five of these occupations required intensive investigation, research and consultation. The decision to select or not select an occupation was based primarily on our ability to identify key agencies and individuals willing to cooperate with us. Protracted negotiations seemed to be inevitable before agreements could be reached; this process involved first defining our goals in terms which coincided with the goals of the potential collaborators and also had practical application for them. Plans were then worked out which specified the responsibilities of the collaborators. In most instances, the proposed collaboration plan had to be studied either by a committee of staff and/or by directors of affected departments or units.

Reaching agreement with collaborators was further complicated by sudden, drastic changes in funding of public agencies. Budget cuts and job freezes curtailed plans for expansion of services and staff in many agencies. In some instances, this resulted in shortage occupations suddenly being converted to surplus status. Administrators became extremely cautious about entering into agreements for new programs. The general economic recession forced private agencies and institutions to be equally cautious about new commitments that would add to their fiscal burdens.

Sometimes during the negotiations with employers, the occupation under discussion would be dropped and another occupation substituted. For example, in our initial discussions with representatives from a State institution we were considering a new occupation of Mental Health Worker which would encompass a number of presently distinct disciplines as applied to a specific population. For several reasons it was not possible to work out a viable program, but it became apparent that there was a great interest and support for a different program, in occupational therapy; working with the same employer, we changed the occupational goal.

In some fields, we had less difficulty than expected in gaining the cooperation of unions, professional associations and Civil Service departments. In a few cases these groups encouraged our development work: helping locate collaborators, providing consultation services, participating in job analysis and curriculum development, and even offering to contribute some funding. More problems than anticipated were encountered in identifying and working out agreements with academic institutions.

Occupations were eliminated from consideration for a variety of reasons. The overriding factor for not setting up a program in an occupation was the matter of timing. It was felt that a program could be set up at some future date in most if not all of the occupations considered. For example, we considered a physician's assistant program, but it presented too many barriers. Since that consideration, however, New York State passed a licensing law for physician's assistants, eliminating many barriers. It would have been possible for us to undertake a program for this occupation if we had not already selected those with which we would work.

Of the human service occupations surveyed by NCLC staff, five survived preliminary field investigations: Addiction Worker, Child Development Worker, Occupational Therapist, Classroom Teacher, and Public Health Nurse. The field investigations

included discussions with employers, paraprofessionals, unions, professional associations, educational institutions and special consultants in selecting these occupations where we were most likely to be able to develop a successful model.

We were able to obtain funding for and initiate programs in Addiction Services, Child Development and Occupational Therapy. We were unsuccessful, for a variety of reasons, in getting the Public Health Nursing and Teaching models beyond the planning stage. The appendices to this report contain detailed descriptions of the processes involved in each of the five models. At this point, we are presenting a summary description of the highlights of each model.

Addiction Worker

This model was developed by NCLC in collaboration with seven voluntary drug abuse agencies: Daytop Village, Reality House, Salvation Army, Addicts Rehabilitation Center, Lower Eastside Service Center, Greenwich House Counseling Center and Encounter. LaGuardia Community College and the City University of New York baccalaureate program collaborated to educate, train and upgrade the skills of 30 paraprofessionals, most of them ex-addicts. The education-training program began in September 1973, and will end in March 1977 by which time most of the participants will have earned associate and baccalaureate degrees. The program was funded by the National Instiute of Mental Health.

Child Development Worker

In cooperation with the New York City Agency for Child Development, nine child care centers in Manhattan and Queens, LaGuardia Community College and the City University of New York, NCLC developed a program for the education and training of child development workers in day care centers and other pre-school programs. The model was based on the new credential of Child Development Associate proposed by the Federal Office of Child Development. Thirty-two participants completed their associate degree work and are currently enrolled in a baccalaureate degree program. The program was funded in its first year by the New York State Department of Education.

Occupational Therapist

The occupational therapist model includes a consortium of four New York State health and mental health facilities (Rockland State Hospital, Rockland Children's Psychiatric Hospital, Letchworth Village and the New York State Rehabilitation and Research Hospital); two academic institutions (Rockland Community College and the City University of New York); the New York State Departments of Health and Mental Hygiene, and the American Occupational Therapy Association, collaborating with NCLC. The program aimed at opening career-advancement opportunities in the field of occupational therapy for economically and educationally disadvantaged workers in four clinical institutions. Up to 16 workers a year for four years were educated and trained for positions as Certified Occupational Therapy Assistants and Registered Occupational Therapists, earning associate

and baccalaureate degrees. This program was funded by the National Institute of Health and has since expanded to include additional colleges and clinical facilities in upstate New York.

Classroom Teacher

The teaching model was developed by NCLC in cooperation with Community School District #9 (Bronx), the Bernard M. Baruch College's School of Education, and the United Federation of Teachers. Its objective was to prepare the district's classroom paraprofessionals to become certified early-childhood teachers.

This five year project was to enroll 30 teacher aides annually and prepare them for teaching roles in a baccalaureate degree program based on teacher behavioral competencies derived from pupil learning objects. The model's high operational and research costs created problems in obtaining funding and a severe budget crisis in New York City forced us to disconinue work in this occupation.

Public Health Nurse

This was to have been the fifth occupational area for development. The original plan involved the training, education and upgrading of Public Health Assistants within the New York City Department of Health to positions as Junior Public Health Nurses and eventually to Public Health Nurses. There was a strong interest on the part of the Department of Health and an academic collaborator. The first problem encountered centered on the city's hiring freeze. The second involved the loss of the academic collaborator due to internal administrative and staffing difficulties. Other academic collaborators could not be located because their regular nursing courses were fully subscribed; their nursing graduates were having difficulty in locating jobs; and there were problems about changing the thrust of nursing education from bedside care to public health. Many of the associate degree programs were also having accreditation problems with the National League for Nursing. Work on this occupation was thus discontinued.

NCLC's Role

Initially, NCLC's main thrust was researching occupational areas including the types of personnel employed and needed, and narrowing possibilities on the basis of established criteria. During this exploratory period, NCLC surveyed various human-service occupations to find which had expanding job opportunities and where changes in promotional and credentialing practices would be most feasible and desirable.

The next steps included:

--Arousing interest among potential collaborators and persuading them to participate;

--Overcoming resistance to participation in the projects;

--Bringing collaborators together;

--Determining how to fund the programs and obtaining funding;

--Conducting task analyses to determine the nature of curricula, relationships between formal education and work-site learning, the role of the supervisors, criteria for competency-based certification, etc;

--Developing the basis for institutionalizing the program;

--Coordinating the activities of the collaborators; and

--Problem solving.

NCLC was involved with a wide range of forces: clinical and academic institutions, municipal and state agencies, unions, professional associations and others, each with a different concept of the project.

As a third party, NCLC was able to exercise a unique kind of leverage. Having no vested interest in the orthodoxy of rules, traditions and programs, we were free to make recommendations which could come from no other collaborator. This led to some criticism that we did not understand the problems inherent in making such drastic changes.

In some cases these criticisms may have been accurate. However, without our push and willingness to take chances, many operational approaches would not have been developed.

In each case, NCLC's major task was to coalesce and harmonize the goals and operations of several collaborators at the precise point where their interests coincided. This point varied considerably from model to model.

Conclusion

Much of our success in bringing programs up to the operational and funding stages was directly attributable to the Department of Labor's willingness to permit us to award "development grants" to participating employers and colleges. These $5,000 grants were the seed monies for developing collaborative efforts between employers and colleges. The grants were used to pay for planning, task analysis, and curriculum design, activities for which funds were not available from regular budgets.

We have developed different models for meeting the program's objectives. In addiction, occupational therapy and child development there were two educational institutions offering associate and baccalaureate degrees, with a consortium of employers in each. Occupational therapy was geared to government employment, while addiction services and child development involved non-governmental employers. Addiction and child development were based in New York City; occupational therapy was outside of New York City. Occupational therapy included the active participation of a professional association; addiction and child development did not. In occupational therapy there were existing professional lines; in child development a professional line is still evolving; in addiction there is no well-defined professional line. Funding for occupational therapy and addiction came from the federal government; funding for child development came from the state.

While each of the occupations selected had unique aspects, there were also common elements. All were for low-level, human-service employees largely from minority groups, who could not qualify for higher level positions under conventional systems despite their capability and whose knowledge of their communities had particular value for new systems of service delivery. Each occupation moved the workers from where they were in terms of experience and knowledge, and related to the skills and knowledge needed for competent performance at increasing levels of responsibility. In fields where education has been solely the prerogative of academic institutions, the demonstration models shifted this responsibility so that the employers became partners. This collaboration made preparation for advancement more meaningful, and economically more feasible for employers. In addition, each model met the criteria established in our conceptual design.

A common and essential element in each model was the provision made for operational control to be vested in the hands of a board comprised of representatives of all participating agencies, institutions and individuals, including the trainees. These boards (Policy Board, Program Operations Committee or Parity Board, depending on the model) were given responsibility for seeing to the successful implementation of the models.

They were decision-making, problem-solving groups. NCLC had one vote on each board. Control of the programs was in the hands of those closest to the day-to-day operations. This had a number of important implications. It permitted NCLC staff to devote its energies and time to monitoring and evaluating each model, conducting inter-model comparisons and evaluation, and working for the replication and institutionalization of the models. By involving participants in the decision-making process, we hoped to build in vested interests on the part of the collaborators to insure that the models would continue operation when outside funding

and support were discontinued and when NCLC's contributions were no longer available.

As the occupational models were implemented, we attempted to build a level of expertise which heretofore did not exist in participating institutions. The nature of the models and the process for developing them should establish precedents for continuing academic-institutional collaboration in other occupations and in other settings.

CHAPTER II

IMPORTANT ELEMENTS IN REPLICATING AND INSTITUTIONALIZING THE MODEL

In Chapter I we indicated the genesis of the upgrading model and described the methods and processes for implementing it. The appendix contains detailed descriptions of our attempts to implement the model in five occupations--three successfully and two unsuccessfully. The process described in each occupation is important for those seeking to replicate the model so they may avoid some of the pitfalls we did not, and take advantage of what we learned.

New routes to credentials were identified new procedures for training, educating, and upgrading paraprofessionals were accepted; and the model in three occupations was deemed important enough to attract operational funding. Important institutional barriers were reduced, attitudes and expectations of individuals and institutions were altered; and a base was created for institutionalizing and replicating the design. Certain elements and problems cut across all occupations and constitute a generic series of items to consider when implementing an upgrading program. Indeed, most of these items could be used when implementing a program for new workers as well as for upgrading existing workers.

A. The Consortium Approach

When a single employer or a single academic institution cannot conduct all aspects of an upgrading program itself, it is often beneficial to attract other institutions to share the responsibilities and costs of such a program. In some instances, a consortium may increase the number and size of the problems encountered. However, our experience indicates that the benefits accruing to each member of the consortium far outweigh the problems.

While some consortia are legal or quasi-legal bodies, we found that a voluntary association of agencies and institutions can work very well. Decisions are reached by consensus of the members and continuation is maintained by the informal pressures brought to bear by sister agencies and institutions.

Early in the design of our model we recognized the importance of involving more than one employer. A major change in administration, policy, or budget in one institution is not likely to destroy the model. In addiction services, for example, we originally reached agreement with a single large agency, and then based all our efforts and energies for a long period of time working out a viable arrangment. When internal difficulties forced this agency to withdraw, we had to abandon much of our work and seek another collaborator. Luckily, we were able to intrest a group of voluntary agencies. Thus, no single agency can destroy the model by dropping out of the consortium. Agencies tend to serve as a pressure group to keep individual participants together, offering encouragement and assistance when internal problems arise. Further, no single agency needs to involve its entire paraprofessional staff in training; services can

continue to be offered without too much strain on remaining staff; evaluation is sounder; and there is a better basis for replication.

In some occupations it is desirable that trainees be given opportunities in a variety of settings. This was the case in the occupational therapy project where there was need to gain experience with different treatment modalities and populations. The consortium enabled us to establish rotating field work assignments where trainees from one institution could spend two or three months working in another institution without manpower or service loss to either.

The consortium approach has led to greater employer participation and helped bring into the open employer reactions to program costs and the elements which would have made institutionalization and replication impossible. It is desirable for employers in a consortium to have the same policies with respect to released time, etc. Similarly, working out articulation agreements between community and senior colleges was often difficult, but the consortium provided an appropriate arena for doing so and also brought the input from employers to bear on the problems. For the most part, we found a genuine willingness by most senior colleges to accept fully the work completed at a community college.

Community colleges have proved to be an important educational resource in all our models. Even in occupations where a baccalaureate degree is required, it was possible to tie together the two levels of academia profitably. Traditional four-year colleges usually require a preliminary period of up to two years devoted to "required" courses prior to education in a specific field.

Linking colleges and employers was not easy. Problems arose when it was necessary to satisfy at the same time employers' needs to deliver services and colleges' budgetary limitations, scheduling, and faculty rules. The consortium played a key role in holding these institutions together.

All partners in a collaborative venture are not equally willing, resourceful or capable. Deficiencies in these areas are often best made up by an outside independent organization such as NCLC. It is difficult for an employer or college to keep a group of other agencies continuously informed of all their activities which might affect the program. NCLC served as a communications and catalytic agent to alleviate this problem. The importance of these roles in making a collaborative enterprise successful cannot be overemphasized.

Developing and maintaining effective collaborative relationships among employers, colleges, unions, and others involved difficult continuing negotiations, a willingness to compromise on key issues, and the ability to adapt to changing conditions. The parties had to enter into complicated, highly interdependent relationships. The need to involve other institutions, e.g., unions, Civil Service, and licensing bodies, multiplied problems considerably.

The collaborators were sometimes troubled by the degree of their involvement and the number of meetings, conferences, and other contacts required for planning and implementing models. However, NCLC pushed for involvement of all agencies as we felt that only by full participation and collaboration can a

program be viable. In the process, there was considerable interchange of ideas, knowledge, and theory which was beneficial to all.

Collaboration included:

1. Joint establishment of operating goals;
2. Determination based on publicly shared data;
3. Relationships growing out of concrete, here-and-now encounters;
4. Voluntary relationships among change agents, with parties accepting responsibilities toward each other but free to terminate the relationship after consultation;
5. Power distribution in which the participants have opportunities to influence each other and the program;
6. Emphasis on methodology rather than goals.

The operating arm of each consortium was a policy board composed of one representative from each of the collaborating institutions, NCLC, and the trainees. The policy boards were the key link between NCLC staff and the agencies and individuals involved in each venture. They served as policy makers, communications instruments, testing grounds, problem-solving forums, settings for articulation and resolution of grievances, and discussion groups to clarify and develop new objectives. Each institution, agency or individual involved in any way with a project was represented on the board and was entitled to <u>one vote</u> in all decisions. NCLC sought no special power on the policy boards. We did this to insure that the overall design would be followed after the pilot period; to be free to monitor and evaluate the programs; to insure our technical assistance would be accepted; and to be able to work for replication and institutionalization.

In our programs, the policy boards of the various consortia were responsible for preparing and submitting funding applications, hiring the directors, establishing recruitment and selection criteria, developing curricula, overseeing the evaluations, and, in general, reviewing program progress.

Each occupation requires a somewhat different combination of members in a consortium. Thus, relationships and program linkages should be established with: (a) unions and professional groups which represent workers in the lower-level jobs and in the higher level jobs; (b) managers who would be directly involved or significantly affected by the program; (c) in public programs, the Civil Service Commission and other governmental agencies which could accent success of the program; and, (d) if an existing credential is involved, the credentialing agency. Programs to change established employment patterns are threatening to many groups, particularly if they don't know much about the program except that it will introduce change. In some cases, once the nature of the proposed program is understood, these groups become allies and sources

of information and program resources. It is important to establish a positive link with every group which would be affected by--or which could affect--the program to a significant degree.

We have found that there is a crucial role in the consortium for an organization which has no stake in a specific input, (e.g. released time); or in a specific output, (e.g., filling vacant jobs and getting a better job); but which has the same stake in all of these and an overriding concern with the success of the total program, rather than with the achievement of a single sub-goal. (This has been, in general, the role played by NCLC.) In addition to coordination, the role played by the consortium should be an energizing, searching, stabilizing and guiding role. If the members played their roles perfectly, there would be no need for an organization such as NCLC to be involved once the major participants were brought together, agreed on a program, and worked through a pilot period.

Early involvement of unions, professional associations, civil service agencies, credentialing bodies, and other groups in the development and design of a program is key to successful implementation. In each case, we found interest and willingness to participate to some degree. In the occupational therapy model: The American Occupational Therapy Association provided considerable free consultant time, the union representatives (CSEA) participated in the selection of trainees, and the State Departments of Health and Mental Hygiene participated along with the employing institutions. In Addiction Services: the New York City Addiction Services Agency worked closely with us. In the child development model: New York City's Agency for Child Development and the New York State Department of Education played key roles. The teaching model included relationships with New York City's teachers' union (UFT), CUNY, and the New York State Department of Education. In public health nursing: The National League for Nursing and the New York State Licensure Board for Nursing gave us some help.

B. Task Analysis for Job Structuring and Curriculum Development

Educational programs are usually designed to meet the standards set by professional groups, educators, and accrediting associations, rather than the needs of the job, the employee, or the employer. The focus is on an "education" rather than a "work" model. Functional task analysis to determine the relationships between tasks and system outcomes pinpoints the situation clearly.

NCLC used task analysis in each of its models.* A different method was used in each depending on the nature of the occupation, the work site, the

*Sources from which NCLC developed its task analysis methodologies include the work of Eleanor Gilpatrick (Health Services Mobility Study), Sidney Fine and Wretha Wiley (Upjohn Institute for Employment Research), and the U.S. Department of Labor (Dictionary of Occupational Titles and A Handbook for Job Resturucturing).

availability of trained analysts and other resources, and the specific objectives of the analysis. In general our objectives were to identify tasks, develop training curricula, determine performance standards, restructure jobs, develop career pathways, change institutional requirements and standards, etc. Each task analysis stressed one or more objectives. In addction services, it was to develop a career ladder; in child development, to develop a new curriculum; in occupational therapy, to develop a curriculum reflecting changing roles of professionals and paraprofessionals. In public health nursing, it was to help modify clinical nursing education to give greater emphasis to community care. In teaching, it was to be used to validate definitions of teacher roles, measure role changes, and form the basis for the state-mandated competency-based credential.

It was assumed by people who developed paraprofessional programs that the mere presence of large numbers of paraprofessionals would introduce changes in promotional policies. This assumption was not justified and paraprofessionals are paying for the error. Two main obstacles were ignored. The first is that employers' commitments to train and upgrade paraprofessionals are limited by their budget and service needs and their willingness to contribute workers' time, skilled supervision, facilities, supplies and other resources for these purposes. The second is absence of job standards for human service occupations. This is a barrier to horizontal mobility and to gaining acceptance of work-experience for credentialling and college credit.

We attempted to deal with these problems by conducting a task analysis in each occupation to identify common worker utilization and employment practices; to help employers structure more efficient and effective job patterns; and to construct curricula.

We were hindered in task analysis by the absence of systems information and systems analysis. Employers did not know,, and were unable to determine, their manpower and service needs, standards for promotion and upgrading, and what education and training were desirable.

Employers should be able to measure the effectiveness of service in order to determine how best to utilize staff, structure jobs and set qualifications. Few agencies were willing, without outside pressures, to undertake this kind of self-analysis. In child development, the creation of a national credential encouraged systems analysis. In occupational therapy, the professional association (AOTA) attempted to restructure occuptational therapists' roles. In addiction services, the agencies tried to use the task analysis results to bring about a degree of job uniformity among agencies, but the different treatment philosophies precluded generally applicable systems analysis and employment structure.

Job restructuring attempts founder when faced by problems of funding, vested interests, and lack of technical talent. These override considerations of service needs, skill utilization and worker mobility. Addiction serices and child development are fields which are funded on short-term, incremental bases--radical changes, which need approval by funding agencies could invite disaster.

Occupational therapy, in our model, was budgeted, classified and imbedded in a rigid civil service system. Existing employees, unions and civil service and budget bureaucrats had a continuing interest in preventing change. The use of the consortium enabled us to overcome most of these problems.

While there has been a great deal of talk about competency-based credentials, there has been little action. All of our models used competency-based education and thus related to competency-based credentialling.

Our work in the child development area resulted in NCLC being awarded two contracts by the CDA Consortium to develop instruments to measure classroom behavior. We used our task analysis of child development work as the basis for identifying necessary competencies and competency levels. The American Occupational Therapy Association had a funded project to develop behavior-based proficiency measures in which our OT project was used as one of the testing grounds.

The task analysis we conducted for each occupation was a factor in curriculum design. The academic institutions initially saw curriculum as their sole responsibility and resisted involvement of the employing agencies. Many diverse and diversionary issues were raised, including: cost of changing curricular and teaching approaches; the importance of tradition; the superior knowledge, experience, and responsibility of the faculty; educational standards; pre-existing course content and requirements which could not be changed; college curriculum committees which met only twice a year; and even academic freedom. Employing agencies tended to see the program primarly as a means to meet their training and operational needs.

It was easier to obtain curriculum change in technical departments such as occupational therapy, mental health, and child development, than in liberal arts departments such as English, psychology, and mathematics, which had less direct contact with the programs and staff and which resisted the implications and directions indicated in the results of our task analysis.

Occupational and vocational education tend to have lower priorities for college faculties, even in those schools whose primary purpose is the operation of such programs. These programs are seen as less prestigious than liberal arts and science programs.

It is difficult to achieve change in an institution where power is diffuse and where a veto over decision making is in the hands of people who will get no need satisfaction from the proposed change.

The ability to affect scheduling of courses, hours in which they are given, manner in which they are taught, and similar factors will have a crucial effect on program success and institutionalization.

Few colleges are willing to consider the question of how much formal education is relevant to the jobs paraprofessionals would eventually be eligible for. From the viewpoint of most college faculties, job competency is less important than having the prescribed academic background and credential.

Our limited resources and influence did not permit us to solve all these problems in the development of our models, but our academic collaborators did make some changes in course offerings and scheduling. At LaGuardia Community College, the science department revised its core course for the child development program; for addiction services, it included a human biology course on the effects of drugs on different bodily systems and organs.

There has been a failure to identify common knowledge and skills that all human service workers need. Each occupation tends to develop its own requirements and its own approach to human behavior, making transferability of skills and horizontal mobility more difficult. We encouraged an inter-occupational, interdisciplinary core area to help workers move from one occupation to another with maximum transferability of credits, such as the mental health core for addiction workers which can lead to a host of occupations. We were only partially successful in getting colleges to modify their courses of study; usually employers and workers made the concessions.

However, the task analyses were important in relating the objectives and program activities of the employing systems, the past and future work experience of the trainees, the educational curriculum, selection of program participants, and program evaluation.

There are many systems of task analysis, and the particular approach selected depends upon the resources available, the kind of information required, and the objectives. We combined several approaches in order to stress:

--Services to be provided by the systems
--Need satisfactions of the employers
--Use of nonprofessional tasks as stepping stones to professional competence
--Linkages between school and work
--Academic credits for work
--Nature of supervision needed
--Intermediate job levels between paraprofessional and professional levels.

C. Preceptors

A key element in our work-study model was the early identification and involvement of competent, dedicated work supervisors to serve as preceptors and adjunct faculty. In the child development program these were often the Center Directors themselves or the Education Director if the center was large enough to have one. In the Addiction Services program the preceptors were selected from regular agency supervisors. In the occupational therapy program, the employing institutions were unable to provide staff for this role so the program itself hired four registered Occupational Therapists and placed one in each of the institutions.

In each program, the preceptors were given adjunct faculty status at the participating colleges so that what was taught and experienced at the work sites

could be college credited. The preceptors were important for assuring worthwhile work experience, linking classroom theory and workplace reality, and easing problems related to special program needs. They became the trainees' teachers, mentors, and role models, and the link between the colleges and the work sites--between theory and practice. To help them in these roles, each model had a "training the trainers" component which included formal training sessions, workshops, and seminars focusing on paraprofessional and professional roles, supervisory and training techniques, relationships between theory and practice, and program evaluation.

Since many of the preceptors were forced to carry extra loads--their own full-time work plus the new supervision roles--we tried to provide some additional incentives. These included, in addition to the adjunct faculty positions, some additional pay (addiction services and child development), and graduate credit (occupational therapy).

Preceptors played major roles in identifying problem areas and recommending new directions for the programs to take. They not only provided the major link between colleges and employers, but also attended program board meetings where they were able to influence program policy.

D. Credentials and Career Development

Credential, for our purposes, refers to any license, certificate, form of registration, or academic degree required for working in an occupation. While the major objective of credentialling is to protect the public, credentialling regulations generally follow professional guidelines not service requirements. The quality of service and utilization of workers in "helping" professions are largely determined by educational standards rather than by service needs and worker competencies. It is generally agreed that many professional tasks can be performed by persons with less formal education than that required of professionals.

On the negative side, credentials create: (1) irrelevant demands - the difference between what certifiers require and what employers and the jobs demand; (2) overly specific demands - ruling out alternative ways of developing competence; (3) too early demands - making it difficult for people to bloom late, to reconsider their interests, to experiment with different kinds of experiences, "to delight in mobility."*

Efforts to reduce the adverse effects of credentialism have focused on: (1) increasing the number of workers with needed skills; (2) reducing discrimination, (3) reducing the emphasis on formal education; (4) increasing the employer's role in determining who will do what on the job; (5) making greater career

*S.M. Miller, Towards More Development and Less Credentialling: Some Notes, OECD Discussions on Educational Credentials (Paris, November 1973), mimeo.,p.1.

mobility possible for adults and people with little formal education; and (6) job restructuring to increase the number of jobs which do not require high education requirements.

We considered the following strategies in our model:

--To eliminate credentials entirely,
--To adapt existing credentials to fit new roles.
--To reduce requirements for credentials
--To develop new credentials.
--To develop new routes to existing credentials.

Eliminating credentials, adapting credentials to fit new roles, and reducing requirements were beyond our capabilities and resources. Each calls for far more power than we had to influence professions, regulatory bodies, legislatures, and employers. Further, paraprofessionals we interviewed indicated that they wanted the same credentials that others in the field had, not something different, and certainly not nothing at all. Our efforts, therefore, were channeled to developing new credentials and new routes to existing credentials.

In addiction services, where there are a multiplicity of academic disciplines and credentials including social work (MSW), psychology (Ph.D.), psychiatry (M.D.), our aim was to develop a meaningful intermediate generalist credential in mental health at the associate degree level, leaving the areas for further credentialing open to the individual. Thus, our addiction services trainees have gone on for baccalaureate degrees in social services, teaching, administration, psychology, and pre-law.

In child development, where the existing credentials were at the bachelor's and master's levels, a new competency-based credential--Child Development Associate--has been instituted by the Federal Office of Child Development. We accepted as our immediate objective preparing workers for that credential. However, we found that our child development trainees preferred the traditional credentials, and after obtaining associate degrees, almost all have gone on for bachelor's degrees in early childhood education. Most are ignoring the CDA credential because they feel the regular academic degrees far outweigh it.

In occupational therapy, our efforts went into developing new routes to existing credentials. We were successful in obtaining the approval of the American Occupational Therapy Association for our associate degree program leading to a credential as Certified Occupational Therapy Assistant in addition to the academic degree. We also have the first, and to date, only baccalaureate program to be approved by the Association which is conducted in a non-OT school--a university without walls. Trainees are eligible to take the AOTA's examination for Registered Occupational Therapist and to be licensed by the State under its new OT licensing board.

In each of our programs we were able to obtain credit toward credentials with a combination of regular academic courses, field work experience, on-site training, and life experience. College credit for work knowledge and experience shortens

the time needed to complete the program, reduces the costs, ties school and work together more effectively, and motivates workers. While college rules may prohibit more than nominal credit without examination, there are a number of ways to provide additional credit. One is to include supervised work application of classroom teaching as an element of the formal educational sequence. A second is to accredit in-service training. A third is to credit tested work competency. Credits earned in these ways should be transferable to other academic institutions.

We do not believe that it is possible, or even desirable to eliminate all credentials. Certainly not in terms of consumer protection. The trend for the past 100 years has been to increase the use of credentials. On the basis of our experience, we believe that the most that can be done is to reduce unnecessarily high requirements for credentials. However, a head-on attack on this socially desirable and less difficult objective proved to be beyond our capabilities. Widespread reduction of requirements for credentials requires action by the appropriate branches of government and professional groups. We believe that our limited goals helped to provide career advancement opportunities for a large group of people.

The establishment of a credential to recognize a level of competence and to give job stability and mobility to a depressed group is not undesirable, e.g., the associate degree program to help people qualify for the child development associate credential is not a new barrier, particularly since the credential can be obtained on the basis of performance alone.

We recognize that once people get into higher level jobs they have a vested interest in retaining high requirements for their jobs. Our primary goal was getting higher level jobs for paraprofessionals and others who are barred from these jobs by credentialing and educational requirements.

We could not guarantee that every trainee would succeed; some participants in our programs were unsuccessful and thus were double losers, but many made it. We believe that success in learning cannot be insured and that it is socially more desirable to risk failure than to fail to give people a second chance. We also believe that there should be opportunities for all, but not necessarily the identical opportunities or in the same program or at the same time.

E. Program Costs

The cost of developing and conducting special paraprofessional upgrading programs is very high. The typical consortium of agencies and individuals cannot afford, under ordinary circumstances, to pay the developmental and evaluation costs. Other funding sources should be sought for these one-time costs. All parties must share the responsibility for examining the costs of the program and deciding how to achieve a stable base of support. Where evidence exists that the program has a long-range potential and that the demand for training will continue, programs should be incorporated as rapidly as possible in their regular budgets. A key decision in planning is the relative priorities of cost and effectiveness. The decision to maximize effectiveness for a fixed cost or minimize cost for a fixed effectiveness can have great impact on the program.

If a training/education strategy is to be successfully replicated or institutionalized, information about the cost and effectiveness should be available to the decision makers. A model which yields cost/effectiveness data gives program designers a base for judging alternative approaches.

Released time is a necessary condition for employed adults to complete a demanding educational program in a relatively short time. While released time is important, over-emphasis is a major obstacle to instituting and institutionalizing a program. Few employers are willing to underwrite career advancement programs which require significant amounts of released time. In addition to the cost of released time, there are other counter productive consequences. Some are: lowered morale of employees who are not selected for the program, but who may have to carry out the work left undone by the workers in the program; resistance on the part of consumer representatives, who see the consumer as the one who pays for the released time; disruption of normal work processes; reduced management responsibility; a lesser commitment on the part of participants to the achievement of work goals; and, in some cases, lowered rather than higher performance standards. Not only is the amount of released time crucial, but when the released time is taken is also important. Unless the educational institutions change their course offerings and make special arrangements, it is possible that workers will be going to school for substantial parts of each working day. Time may also be required for supervised in-service practicum and regular course work.

Significant released time requirements make inter-system programs impossible unless an outside source pays for the cost of this time. Sometimes the released time burden can be reduced by replacing "released" workers with students or interns. Most employers (public or private) cannot carry the full burden for released time. In any event, it will always be the consumer who pays. If released time is socially desirable then society as a whole should pay, not the consumer of specific services. Programs have a better chance of working and being replicated if the worker is required to make a significant contribution. Trainees; contributions of time and effort cannot be considered as merely "icing on the cake"--a minor supplement to the employer's contribution. It must be a major contribution complementing the contributions of the employer, the educational institution, and other supporters of the program. An employee's contribution is a measure of commitment to successfully complete the program. The employee must not only master the academic content of the program, but must continue to perform regular job duties at an acceptable level.

Another significant cost is the need to supply supportive services such as counseling and tutoring. Provisions for supportive services are needed if an employed adult is to succesffuly complete an accelerated program, particularly if the adult has family responsibilities, has not attended school for some time, and had an unsatisfactory school experience. The nature, range, and intensity of these services should be based upon the specific worker population and the demands of the specific program not on general assumptions. Employer and school have a common responsibility to provide the student with supportive services. The agency can provide counseling and assistance on job-related and career problems. The college can furnish educational guidance and counseling focused on improving the student's learning. Personal counseling and other supportive services can be provided by community agencies. It is difficult to estimate

in advance how much such services will cost since they will be based on individual need, but program sponsors should be prepared for some additional costs.

F. Evaluation

Evaluation should be built in from the beginning. Program design may have to be changed to make meaningful evaluation possible. After commitments are made, it may not be possible to change the program. Sometimes there is the difficult choice between a successful program and a thorough evaluation. It is important to recognize this and make the difficult decision involved. Ignoring the issue may result in an unsuccessful program and useless evaluation. Evaluation should provide feedback for improvement of curriculum and work methods in addition to providing data for measuring the success of the program. It should include information on:

1. Career development of individual trainees

   Job assignment; salary; promotion; percentage completing two-year and four-year components; career mobility; job performance; time and cost of program; kinds of people participating; application of learning on job; etc.

2. Employing organizations

   Staffing; duties assigned to paraprofessionals generally and to paraprofessionsals in an educational program; recruitment for paraprofessional jobs; cost of program; nature and quality of supervision, training, and services to clients; use of task analysis; expectations of improved performance; use of performance evaluation; etc.

3. Educational institutions

   Competency credit; work-study credit; use of adjunct faculty; requirements for entry; relationships with employed students; admission and special programs for working adults; use of task analysis; curriculum; teaching methods; etc.

4. Career development model

   Cost effectiveness; replication; standards of professional associations; acceptance by unions, professional associations, Civil Service, etc.

G. General Conclusions and Recommendations

On the basis of our experience with five occupations, we have reached a number of conclusions and are in a position to make general recommendations to organizations which undertake such programs:

1. The needs and potential of employed workers have been neglected in favor of the young and the unemployed. More programs are needed to provide opportunities for upgrading workers and encouraging them to continue training and education. This, in turn, opens up entry-level jobs for new workers, as the older employed move up the career ladder.

2. Our approach--the development of an integrated work-education-career system--is viable and can be utilized both in human service occupations and other than human service occupations.

3. Job shortages in an occupation are a neccessary condition for a successful program. However, even severe shortages do not insure that upgrading programs will be accepted by employers, employees and others and that the program will be supported by a funding source. While meeting the need satisfactions of the paraprofessionals is the primary objective of these programs, the need satisfactions of others must be considered and met to a reasonable extent for programs to succeed.

4. An employer-college-employee consortium can carry only a few special upgrading programs at present without outside funding. More work should be done to reduce the costs of such programs and to include funds for them in national education efforts.

5. There is need for better and more accessible information on funding sources. The Federal government should encourage and simplify the conditions for multiple source funding. It might be more productive if funding agencies cooperated in offering joint funding, rather than forcing the applying agency to put together a funding consortium.

6. Human service occupations offer good opportunities for adults. Employers, unions, and credentialing agencies should seek to restructure these occupations to establish several entry levels for adults with differing life and work experiences.

7. Credentialled workers are frequently unwilling to cooperate in programs to upgrade paraprofessionals as they feel their needs are not being met. Continuing development of credentialled workers is necessary to gain their support.

8. Poor articulation between two-and four-year year academic programs makes advancement to the full credential from an intermediate credential difficult. Articulation should be built into the program.

9. Educators, in general, downgrade vocational programs. This is an obstacle in establishing and conducting work-study programs. Project staff must work with faculty members as well as administrators to overcome this problem.

10. Much more study is needed in evaluating work competencies and in determining the value of work for college credit. Task analysis is the most promising approach.

11. Vocational preparation for human service occupations can start at the high-school level if these programs are articulated with college programs. Development of a core curriculum for all human service occupations would encourage this without unduly restricting student career choices.

12. Employers who require academic credentials for career advancement should help their paraprofessional employees to attain these credentials.

13. Neither employers nor workers can afford two hours travel time to educational sites. Educational programs should be located at the worksite and near mass transportation facilities.

14. Funding agencies should encourage more risk in pilot programs.

15. Competent neutral consultants to serve in the several roles played by NCLC in these projects may be essential in complex programs involving several independent agencies. The funding sources may well make the involvement of a "neutral" a requirement for funding complex programs.

16. Under the pressure of employed and credentialled groups, employment requirements tend to continually increase. There should be a mandated periodic government review of credentials and minimum requirements for employment and the process for attaining these to protect consumers both from poor service and inflated costs.

H. Conclusion

Educational and manpower programs generally focus on initial jobs and are rarely concerned with promotion and upgrading, career ladders, integrating work and education, and making it easier for an employed worker to obtain credentials. We have focused on helping the employed worker. We have identified some of the problems involved and have demonstrated how some of these can be solved. There are no distinctly new program elements in our design. What is new is a non-doctrinaire approach, using the results of many other programs, which resulted in a different set of elements and solutions for each of our models. Because of our problem-solving approach, the models changed from our original designs as time went on and new needs arose. Actual practice distorted some of our theoretical constructs.

We identified and attempted to develop programs in five different occupations. We were successful in seeing three of them fully implemented and funded. Each may be considered an unqualified success in that most of the objectives we established for each were achieved. New routes to credentials were identified; new procedures for training, educating, and upgrading paraprofessionals were

accepted; and new models attracted operational funding. Important institutional barriers were reduced; attitudes and expectations of individuals and institutions were altered; and a base was created for institutionalizing and replicating the design.

NCLC's continuing participation in monitoring the programs, evaluating them, and providing technical assistance, helped us to learn and to feed this learning--through experience--back into institutionalization and replication efforts. It is inevitable that a design which does not use a fixed model for all programs will have varying degrees of program success. On an overall evaluation, we believe that the project has achieved some solid successes and that our experiences have important lessons for those contemplating similar programs. Each program has been successful in certain areas.

Addiction Services

Ex-addict addiction services workers, most with criminal records, have successfully completed academic programs for associate and baccalaureate degrees, taking many of their classes with police officers. Most have advanced to higher positions of authority within their agencies. Some have left the addiction field to enter teaching, social work, and law.

They were able to obtain up to 30 credits for life experience and demonstrated an ability to teach others as well as learn.

Numerous other addiction agencies have indicated a strong desire to replicate the program when funds become available.

The success of the program led directly to another funded program for vocational skill training programs for younger addicts.

Child Development

LaGuardia Community college has extended our model to include regular college students. It has expanded the program from our nine day care centers to 35 centers, and increased the number of students from our original thirty-two to 150.

The course and experience credits obtained at LaGuardia for the associate degree have been fully accepted by Adelphia Univeristy which has enrolled the majority of our students in their early childhood baccalaureate program.

The Federal Office of Child Development has utilized our task analysis and methods for identifying worker competency in promulgating the new Child Development Associate credential.

Occupational Therapy

The program was the first of its kind to be approved by the professional association for awarding baccalaureate degrees in a non-OT school.

Significant changes are being made in the State's OT career ladder based on the program's success.

Expansion to three additional clinical facilities and two additional colleges in another geographic area has taken place.

Negotiations are underway for further expansion in the Upstate New York area where the need for such a program is critical.

Regulations of the professional association have been altered based upon the development of this model.

APPENDICES

Addiction Worker Model

Child Development Model

Occupational Therapy Model

Public Health Nursing Model

Teaching Model

ADDICTION WORKER MODEL

A. Introduction

The nation and its major urban communities have responded to the threat of drug abuse problem with a wide range of programs involving a variety of treatment modalities. While these programs obviously have been of some help, it is clear that the nation is far from reaching a satisfactory solution to the total problem. Among the reasons for the lack of progress are: (1) limited resources spread too thin (2) inadequate knowledge of what is useful in prevention, treatment, and rehabilitation: (3) disagreement over which are the most effective approaches; and (4) major gaps in staff training and development--both theory and practice. Our program concentrated on this last point.

Early in our search for occupations characterized by shortages of skilled workers, and where the employment of paraprofessionals was much in evidence, the field of addiction came readily to mind. The constant media coverage given the drug abuse problem in New York City frequently connected the difficulties in coping with the problem to the lack of skilled practitioners. In addition, NCLC staff had some personal knowledge about staffing patterns in drug rehabilitation agencies and the need for more highly trained personnel who understood the field and were capable of assuming higher levels of responsibility.

The need for well-trained staff had been amply documented in New York City in 1972:

> More than 2,000 new personnel are working in school-based programs and perhaps an equal number in treatment programs. Also the realization is steadily growing among other organizations (e.g., hospitals, social work agencies, correction institutions, and industry) that they have a major role to play in fighting drug abuse. Despite these facts, a major shortage exists of manpower possessing the clinical, experimental, or academic background to do the job. Few medical schools, colleges or universities, or other manpower institutions have addressed themselves to this problem.*

Many addiction service programs employed ex-addicts on the premise that direct-service staff should be drawn from, and related to, the communities they serve. Thus, ex-addicts are assigned to work with addicts on community problems related to drug abuse.

The effectiveness of drug abuse programs depends upon the competency of workers in the field. There were relatively few professionals in drug abuse programs; most workers were paraprofessionals who were themselves ex-addicts. This predominance of paraprofessionals was likely to persist. Thus, the effectiveness of drug abuse programs depended on improving the service-delivery capabilities of paraprofessionals.

*Graham S. Finney and Raymond H. Godfrey, Jr., "Heroin Addiction and Drug Abuse in New York," City Almanac, Vol. 6, No. 6 (April 1972), p.12.

The paraprofessional addiction service workers have developed considerable skill, insights, and experience in dealing with addiction. Despite these skills, they were locked into jobs with little career opportunity. Higher positions within many of the addiction services agencies and in agencies offering related services (e.g. employment, rehabilitation, probation, and parole) use these skills but require academic or occupational credentials. The credential is particularly important for the ex-addict. Regardless of his skills, experience or motivation, he was confined to working with other addicts in the only human-service job for which he could be hired.

What was urgently needed were programs which would enable these workers to move vertically into administrative jobs in the drug abuse field, and horizontally into allied fields.

B. Development of the Model

In September, 1970, NCLC surveyed the educational and training needs of paraprofessional addiction workers employed in New York City's Addiction Services Agency. While education and training was considered a worthwhile objective by these workers, they did not see education as a necessity. They felt they were able to advance in the Civil Service ladder without academic degrees or professional certification.

The Commissioner of ASA, however, stated this was not the case. The addiction specialist series was newly established and all the workers would be required to compete in an examination for these positions. Convinced of the value of the paraprofessional addiction workers, ASA did not want to risk losing them through the establishment of a system requiring conventional academic credentials and passage of a written test. Thus, at the time of NCLC's initial contact, ASA felt the need for an innovative educational and upgrading plan and consequently agreed to participate. The Horizon Project, one of the largest and best funded under ASA's aegis, was designated the laboratory component for our project.

Horizon Project, funded by NIMH, operated a large residence for drug-free therapeutic treatment, an out-patient facility, a number of intake and community education storefronts, and was preparing to open a second residence.

A well-known eastern college, a pioneer in fostering innovative programs, agreed to explore the establishment of the academic component patterned on its external degree program for mature students. NCLC provided a $5,000 developmental grant for this purpose. The goal was a program which would include: independent study under a faculty mentor; the contract format; student and mentor evaluation of programs and progress; credit for previous college work and significant life or work experiences; college-accredited in-service training; and acquisition of a baccalaureate degree within four years or less.

The program included: one week at the start of each semester in residence at the college to work out study contracts, attend seminars, and utilize the research and library resources of the institution; four intensive, New York-based annual workshops; and regular visits by faculty to provide academic and

administrative supervision to the students and the counselor-tutors.

In collaboration with ASA, NCLC conducted an intensive analysis in Horizon Project. We hired an expert consultant who first trained Horizon staff to conduct interviews and administer questionnaires to elicit pertinent data. Supervisors reviewed the data for accuracy and to provide additional information. The following 13 major functions and 47 explicit tasks reflected most of the work being done in the agency.

1. Administration

   Tasks: clerical work· administrative services.

2. Supervision

3. Self-Training

   Tasks: training new staff; training trainers; supervising education programs for the community; training of residents.

4. Reports

   Tasks: daily records; compiling reports

5. Recruiting

   Tasks: making contact; engagement; involvement of addict assessment of needs and referral.

6. Orienting the addict to rehabilitation

   Tasks: involving the prospective program participant; giving him facts he needs to make decisions; orienting him to groups; evaluating the prospective participant's potential for rehabilitation and referral.

7. Working with addicts

   Tasks: activities directed to making the addict drug-free and emotionally sound; activities for giving him skills and responsibility; evaluating his growth and development.

8. Community relations

   Tasks: identification of agencies; establishing contact with agencies identified; opening, developing, and maintaining working relationships with agencies; reporting back on relationships developed.

9. Community education

Tasks: establishing appointments; making presentations follow-up with the participants, serving as information officer.

10. Counseling

Tasks: making contact with parents of addicts, pre-addicts, or youth in programs; making contact with the schools individual counseling with young addicts; follow-up on other activities.

11. Forming community groups

Tasks: making contact for the purpose of organizing groups; organizing a group; follow-up.

12. Running a community group

Tasks: group raps seminars; running an encounter group; engaging the group in activities.

13. Interviewing

Tasks: making contact; interviewing evaluating; making determination; referring escorting to other programs.

Based on this analysis, an NCLC specialist with the help of ASA and Horizon staff identified the following skills and knowledge:

General skills and knowledge

--Orientation for all staff concerning addiction theory and programs, as well as general information about the community, the Horizon Project, and the Addiction Services Agency.

--Basic skills in reading, math, and communications techniques for trainees deficient in these areas.

--Administrative and technical skills, particularly problem-solving, planning, and supervision.

Substantive skill areas

--One-to-one dynamics.

--Group dynamics.

--Community relations, community service, and community organization.

The task analysis provided a basis for examining the similarities between the drug abuse field and related occupations, and provided the framework for establishing a horizontal mobility plan.

A proposal was submitted to NIMH in October 1971, for the education, training, and upgrading of 24 paraprofessionals employed by Horizon Project.

NCLC held a two-day conference with representatives of the college, ASA, and Horizon to discuss the in-service training and the academic program. There was general acceptance of the skill and knowledge areas identified, but some disagreement with the proposed educational plan. College representatives wanted the in-service training closely tied to the degree program's format and content. ASA wanted in-service training focused on operating needs. Both the college and ASA wanted all workers included in in-service training. This raised the question of how credits could be accrued by workers not selected for the degree program.

Further problems arose related to the amount of credit to be given for life-experience, and the selection of 24 paraprofessional participants from a staff of 80 eligible workers.

A new proposal dealing with these problems was submitted to NIMH early in 1972. A Horizon Learning Center would be established, manned by college faculty responsible for in-service training of the entire staff and supervising the study contracts.

In April 1972, NIMH rejected this new proposal. Its major objections centered on the proposed baccalaureate program; failure to link formal education to in-service training needs; and the playing down of vocational advancement opportunities. At meetings with NIMH staff, we learned that it would look favorably upon programs offering ex-addict paraprofessionals the option of moving out of the drug abuse field entirely.

At this time, internal problems at Horizon Project forced it to withdraw from the program. We began negotiations with SERA, a large independent Bronx-based drug abuse agency. No program could be established as SERA insisted on its own in-service training program, not coordinated with the liberal arts program, while the college could not modify its existing program to meet the goals of the agency. The in-service goals of the first, and the educational philosophy of the second, could not be changed sufficiently to meet the basic conditions of a strong linkage between work and education. We were forced to seek new collaborators.

Convinced of the viability of our model which took two years to develop and refine, and under pressure to submit a proposal to NIMH in one month (September 1972), we obtained from the Fiorello H. LaGuardia Community College of the City University of New York and an association of voluntary drug abuse agencies commitments to participate. A two-week extension of the NIMH deadline permitted us to submit a proposal by October 15, 1972. In May of 1973, NIMH funded our program for three years.

The budget provided for a Program Director and secretary, reimbursement to the agencies employing trainees for release-time, funds to supplement the tutoring by LaGuardia, tuition costs for those students requiring it, and money for supplies, equipment, and travel.

C. The Model

1. Overview

The National Child Labor Committee collaborated with a consortium of seven New York City voluntary agencies, LaGuardia Community College, and a City University of New York senior college program, in a demonstration program. The objectives, based on an analysis of the skills and knowledge needed to perform addiction service tasks at both elementary and higher skill levels, were to increase the professional and managerial competencies specific to the drug abuse field and to develop functional competencies which would permit paraprofessionals to use their skills, understanding and techniques in a broad range of human service and mental health occupations.

Thirty paraprofessional employees of the seven voluntary agencies were enrolled in the three-year program, and began their formal education and training in September, 1973. The trainees were predominantly young adults, former addicts, and minority-group members. Their work histories included valuable experience as addiction service workers. However, they lacked broader functional knowledge and skills, formal education and credentials needed for promotion and job mobility. A two-stage program was implemented including an associate degree in Human Services with a concentration in mental health, and individualized baccalaureate programs at a senior college of City University or in the CUNY BA program. The program included formal academic study at the above-named institutions, in-service training in the addiction agencies, and related work experience, all college credited.

2. The Colleges

a. LaGuardia Community College, one of 20 branches of the City University of New York, opened in September, 1971, as the only unit of CUNY to offer work-study programs to all of its students. The college is dedicated to the concept that learning occurs both in the classroom and on the job. Its educational program provides the traditional academic foundations for learning, while helping the students to meet the requirements of urban living and employment. Instruction and work assignments are coordinated into a coherent education program. LaGuardia College operates on a year-round, four-quarter system, with each quarter of 13-weeks duration. The usual full-time student attends classes during three of the quarters and works the fourth. During a student's working quarter he or she may be allowed to take a course or two. Similarly, in order to make the faculty work-year consistent with that in other CUNY colleges, each faculty member takes a quarter's "sabbatical" each year.

In October, 1972, LaGuardia College committed itself to collaboration in the NCLC program by incorporating a mental health curriculum into its new Human Services Division scheduled to begin operations during the 1973-74 academic year. The mental health curriculum was based, at least partially, on the task analysis NCLC had carried out a year previously. The curriculum emphasized the skills and knowledge required to work effectively in mental health settings, including drug abuse agencies. The academic courses were to be articulated with accredited in-service training and work experience at the drug abuse agency site which would be supervised by LaGuardia faculty and agency personnel.

The LaGuardia College commitment was of great significance because NCLC was able to use it in securing commitments to participate from a number of drug abuse agencies. In addition, the LaGuardia commitment made it possible to reach agreement with the City University of New York for a senior college component of the NCLC program--the CUNY Baccalaureate Program, using John Jay College of Criminal Justice as the base.

b. John Jay College of Criminal Justice was founded in 1964 and devoted to the study of the criminal justice system. The need for such an institution grew out of the New York City Police Department's recognition of the increasing complexity of law enforcement and a growing sensitivity to relationships between the police and the community. Although the college has attracted large numbers of students from the New York City Police Department and other municipal, state and federal law enforcement agencies, as well as correction officers, firemen, and others in public service, it has from the beginning also attracted regular college students.

The willingness of John Jay faculty to experiment with innovative programs, as well as its central location, made it an ideal choice as a base for a CUNY BA Program component articulated with the LaGuardia College human services curriculum. In addition, and to compensate for the changing work shifts of the public servants who attend, the college offers split course offerings each day--a morning or early afternoon class being duplicated in the evening hours and taught by the same instructor. A student may attend either depending upon his job assignment on any particular day. We saw this factor as a plus for the drug abuse worker who has a 24-hour a day commitment to his job.

c. The CUNY Baccalaureate Program permits mature and highly motivated students with a clear idea of their educational and career objectives to design their own academic program which may include up to 30 credits for life/work experience and independent study projects. Graduates of the CUNY BA program are awarded the BA or the BS from the City University of New York rather than from one of the system's senior colleges. CUNY BA stdents select one senior college as a "home base" school for purposes of maintaining matriculation; courses may be taken at any or all of the university's senior colleges for credit toward the degree. From the outset NCLC had viewed the CUNY BA Program as a highly desirable option for our students because: (1) they were mature; (2) their motivation was fairly well assured as evidenced by their own efforts at self-rehabilitation; and (3) the opportunity to acquire a maximum of 30 credits for life/work experience and independent study offered the "shorter route to a recognized credential" which lies at the heart of all NCLC training and upgrading models.

Normally, the student participating in the CUNY BA Program plans his or her course of study under the aegis of a two-member faculty mentoring committee of which one member must hold professorial rank. For our program, a new group model was developed, offering considerable savings of faculty time. It offered a choice among three tracks for the paraprofessionals graduating from LaGuardia College: pre-clinical (psychology), community worker (sociology or social work) and public administration.

3. The Drug Abuse Agencies

All of the collaborating drug abuse agencies were members of AVANT (Association of Voluntary Agencies in Narcotics Treatment) AVANT agencies had a long-standing commitment to offer improved career options to their paraprofessional workers. The seven AVANT agencies which formed the initial employer consortium were:

a. Addicts Rehabilitation Center, the largest and only full-service drug abuse agency in Central Harlem. The agency operated a residential facility in addition to a day care component at its Crisis Intervention Center, both drug-free. The agency had a staff of 70 including eight trainees. Three staff members participated in the NCLC program in addition to two former staff members for a total of five trainees.

b. Daytop Village, established in 1963 as New York State's first non-governmental therapeutic community, is one of the largest drug abuse agencies in the United States. Although the agency has had as many as five staff members participating in the NCLC program at any one time, all participants had withdrawn from the program by the start of the 1974-75 academic year for a variety of reasons: two resigned from the agency, one was terminated by the agency for a job infraction, one returned to drug use, and one withdrew because a job promotion demanded too much of her time.

c. Encounter, Inc., a relatively small drug abuse agency located on the Lower West Side of Manhattan. Seven of its staff members took part in the NCLC program at one time or another. In April, 1974, Encounter moved to a new location and immediately came under attack from a neighborhood group. Programmatic changes and internal rifts weakened the agency's resolve to fight back. By the early part of 1975 most funding had been lost and Encounter was forced to close its doors. For a while three three of the staff continued in the NCLC program while seeking employment. Two of the three are still in school.

d. Greenwich House Counseling Center was founded in 1963 by Greenwich House, an old and well-established social service agency. The Center offers counseling services to addicts, ex-addicts, their families and relatives, and a methadone maintenance program in collaboration with St. Vincent's Hospital. The Executive Director of GHCC was instrumental in securing the commitment of the other AVANT agencies to our program. Of the five paraprofessionals on staff, four elected to participate in the NCLC program.

e. Lower East Side Service Center offers programs for out-patients and methadone maintenance. It operates in collaboration with Beekman Downtown Hospital and Beth Israel Medical Center. Its staff of 18 included four paraprofessionals and three of these enrolled in the program. Two withdrew from the program, one almost immediately. The third remained in the program until the beginning of the 1975-76 academic year when he withdrew from the program and also resigned from his job.

f. Reality House is a drug-free day care program in West Harlem. At the inception of the NCLC program, Reality House had just received a long-term grant from the National Institute on Drug Abuse which allowed it to expand its services and double its original staff of 50. At the start of the 1974-75

fiscal year the NIDA budget was cut, forcing a layoff of 25 staff members. The agency's commitment to the NCLC program saved the jobs of the paraprofessionals participating in the program. Of the five who started the program, three are still in school.

g. Stuyvesant Square Center for Women, a residential, drug-free program operated by the Salvation Army. A small out-patient program is also operated which includes some male clients. Budget cuts have reduced the staff to two full-time professionals, consultants and a handful of paraprofessionals. Three of the paraprofessionals who started in the program are still in school. Stuyvesant Square Center was not included in the original grant proposal as a potential collaborating agency in the program. A letter of commitment arrived from its director more than a month after submission of the proposal. When the grant was awarded it was found that four of the 30 program slots could not be filled by the original six agencies and Stuyvesant Square Center was allotted these as a seventh participant.

4. The Paraprofessional Trainees

Although the grant became effective July 1, 1973, actual trainee participation did not begin until the start of the fall quarter at LaGuardia Community College in September. The full complement of 30 paraprofessionals were registered. They included four trainees from Addicts Rehabilitation Center; five from Daytop Village; five from Encounter, Inc. (plus an alternate for whom the agency paid the first quarter college fees and for whom no stipend was paid by the grant) four from Greenwich House Counseling Center three from the Lower East Side Service Center; five from Reality House; and four from Stuyvesant Square Center for Women. In addition, Encounter enrolled one of its clients who was in the final phase of his rehabilitation and for whom the LaGuardia College human service curriculum with its mental health concentration had special appeal. During the spring 1974 quarter at the college he became an Encounter staff member and was accepted into the NCLC program as a replacement for a dropout.

All 30 of the paraprofessionals plus the alternate were employed in jobs which included direct service to clients whether in treatment or some phase of counseling. Job titles ranged from executive director (ARC) to trainee and included group worker and supervising group worker; house counselor and supervising house counselor; resource counselor and vocational counselor; therapist and therapist trainee; court liaison worker and community affairs worker; addiction specialist and case aide; and, audio-visual specialist. Work experience in the addiction field ranged from eight months to 16 years. One-third of the participants had been in the field two or more years.

There were 21 balcks, four of Hispanic origin and five white participants; 22 were males and eight were females; the average age of the enrollees was 30, the youngest 22 and the oldest 49. Six of the trainees were married and living with a spouse and in most cases had one or more children. Eight of the trainees were single, three of them still living at home with their parents; three lived alone and two with others. Six were separated from their spouses, three living alone and three with others. Two of the trainees had been divorced, one living alone and one with friends. Of the males who were separated or divorced none had custody of their children.

Although, as outlined in the proposal, it was theoretically possible for a trainee to undertake college level work without a high school diploma or an equivalency diploma, all the trainees had a minimum of the GED. In addition, 13 of the trainees had some transferable credits from previous college attendance. Five had three credits each, and eight had from nine to more than 30 credits.

Although the claims made by the trainees as to the high school diploma, the GED or the availability of transfer credits were eventually proved to be true, much was accepted on faith during the first academic year. The former life style of the ex-addict trainee was not conducive to the keeping of accurate records, nor did it preclude the use of an alias from time to time. It was hard, for example, to obtain transcripts for evaluation of prior college work and equivalency tests if those tests were taken under an alias, or while in prison. In cases where the high school diploma or GED was not readily available, we had to pay the tuition costs of those students as non-matriculated students. When records were finally found and forwarded, NCLC received credit from LaGuardia for past overcharges.

As the third year ended in June 1976, 17 trainees were still participating. Of these, three had received their baccalaureate degrees; two of them intend to enter a master's degree program in social work at one of the CUNY colleges; the third may take a semester's break before entering a Ph. D. program in sociology at CUNY's Graduate Center. Two more trainees had completed work for the B.A. by the end of the summer session at John Jay College and two during the fall semester. All seven are from the original group of 30 enrollees. The remaining ten are still working toward the BA; eight of these have been awarded the AA degree; two bypassed completion of the AA in order to enter the CUNY BA or senior college component of the program. Of the ten, two are replacements for dropouts. Of the 17 still participating, all but two were original enrollees in the program.

The program has had 18 dropouts, three of them replacements for earlier dropouts. During the first academic quarter at LaGuardia College there were two dropouts, one of whom had resigned from his job. At the end of the first quarter the program lost a trainee from Daytop Village who was dismissed by the agency for inability or unwillingness to perform his job up to standard while attending college. By the end of the second academic quarter, four more trainees had dropped out, one because of illness, one left her job at Daytop Village because she had been passed over for a promotion, and the other two because they were unable to handle the dual roles of full-time worker and full-time student.

By the end of the third quarter, five more had left the program including the last four Daytop Village trainees. Of Daytop's four, one gave up the educational opportunity because she had received an important promotion she felt she could not do justice to while attending school, another left his job voluntarily to attend college full-time to pursue a career in teaching. Since he was an ex-addict with no prior college experience before his exposure to our program, we considered him a program success rather than a failure, a dropup rather than a dropout.

The remaining five dropouts lasted through the second academic year or slightly beyond and in all cases there were severe problems with job, family, illness, etc., which influenced their decisions.

In retrospect it is easy to see that the dropout problem could have been lessened had there been sufficient lead-in time before the first academic year got under way. When the grant became effective in July 1973, NCLC was also involved in getting two additional programs started. NCLC and representatives from LaGuardia College and the AVANT agencies met regularly to plan the program, hire a program director, establish guidelines for the Program Operations Committee which would give directions to the program and complete the work on the first year's curriculum.

It wasn't until September that the program director could start. Meanwhile, the various collaborating agencies had started the screening of potential participants from their paraprofessional staffs. It was in this process that problems arose. Had the program director been on board earlier and functioning in concert with NCLC and the newley-formed Program Operations Committee, greater attention could have been paid to reviewing the qualifications and motivation of the paraprofessional applicants. Better guidelines could have been established for the participating agencies to choose the trainees.

It wasn't until the program had started that we realized that one agency had merely posted a notice and accepted the only three paraprofessionals to apply; that another agency director had virtually forced all his paraprofessionals to apply, with no assurance that they all had the necessary qualifications. At a third agency we might have been able to spell out the release-time more carefully and, at a fourth agency, to persuade the administration to include workers with more experience who could better benefit from the educational opportunity. At times it was surprising that after three years 50 percent of the paraprofessionals remained. This compares favorably with the general college dropout rate for freshmen alone.

5. Program Operations Committee

A common and essential element in each of NCLC's model programs has been the provision for vesting operational control in the hands of a board comprised of representatives of all participating agencies, institutions and individuals (including the trainees). These boards were given responsibility for seeing to the successful implementation of the models. They were seen as decision-making, problem-solving groups with NCLC having one vote on each board. By involving participants in the decision-making process, we hoped to build in vested interests on the part of the collaborat rs to insure that the models could continue operations when outside funding and support were eventually discontinued and NCLC's contributions were no longer available.

The board for the Addiction Services Program was known as the Program Operations Committee. At the start of the program it was composed of representatives from the seven AVANT agencies, LaGuardia Community College and NCLC. Although the trainees were invited to attend, few availed themselves of the opportunity unless a scheduled monthly meeting was being held at their agency site and they were not attending classes. As the program progressed, represenatives from John Jay College and the CUNY BA program joined the Committee. Agency representatives were usually the preceptors who had the responsibility of conducting the on-site, or practicum, components of the training.

During the first two years of the program's operation, the meetings of the POC were well attended and programmatic decisions were made on the basis of consensus. As the community phase of the program was nearing completion and the on-site training component diminished, fewer preceptors and fewer LaGuardia College faculty attended meetings. John Jay College and CUNY BA representatives began to play a larger role. It was through the work of this committee that the articulation of the community and senior college curricula and credit systems were worked out.

6. Linkages

The operation of a program which requires coordination of two academic components, in-service training, related work experience, and the personal problems of trainees who are both working and going to school, cannot be handled by a Program Operations Committee alone. Although the ultimate responsibility for coordination was the program director's, additional mechanisms for assuring smooth operation were worked out. During the community college phase, when students were receiving credit for an on-site "practicum" as well as one credit of a regular college course, close cooperation between college and agency was of paramount importance. To this end, LaGuardia College held faculty-preceptor meetings monthly which covered subjects ranging from course design to standards for giving grades. What evolved was a mechanism for continuing close contact among college faculty, agency preceptors, and the program director through which close supervision of the trainees and their school and job performances was institutionalized. Counseling was available from all three sources, and it was rare that a trainee dropped from the program without someone picking up warning signals and providing some form of intervention. Most of the trainees who have remained in the program have availed themselves of these supportive services.

7. Relationships between work and study

The original proposal made provision for shortening the time spent by trainees in college classrooms. It was proposed that the trainees spend the equivalent of one day each week in formal college work and the equivalent of one full day a week in a structured, in-service training component which would take place at the work sites. Preceptors--regular agency supervisors--would be considered adjunct faculty of the college and would be responsible for the in-service training component. It was envisaged that formal workshops and seminars, individual and small group research projects, demonstrations, field trips and audio-visual presentations would constitute the bulk of the instruction on-site. Emphasis would be placed on relating the principles, practices, and methods of competent job performance to the academic components of the program. It was estimated that approximately four academic credits would be awarded for this in-service training each quarter for an 18-month total of 24.

In addition to the time alloted for the academic and in-service components each week, the trainees would spend the equivalent of three full days a week in regular work assignments in their own agencies. There would be an attempt to tailor and sequence this work so as to reinforce the academic and in-service components. Nine credits would be accrued for this component during the 18-month community college phase. Our trainees, since they were full-time employees at their

agencies, were not required to take off any quarters from the college for "cooperative" field assignments and were to earn their nine credits at the rate of one-and-one-half credits per quarter.

By the end of six quarters, trainees were expected to earn 36 credits for academic study, 24 credits for in-service training and nine for work experience, for a total of 69 credits during the 18 month period.

As might be expected, things did not work out quite that well. The authorities at LaGuardia College, including the faculty committee, were not willing to accept 24 credits of in-service training, particularly if earned away from the college in course work taught by agency preceptors. The nine credits of "cooperative" work experience were allowed under the rubric of a weekly preceptor-trainee practicum session where trainees' related work experiences were logged, examined and discussed as a basis for awarding a grade. In addition, each of the preceptors taught one hour of a two or three credit LaGuardia course weekly. There were four of these "team-taught" courses during the first 18 month period for a total of four credits. The credit requirement for the degree was 66 rather than 69 credits, 13 of which were awarded for on-site activities and 53 for classroom work at the college. When it is considered that of the remaining 54 credits needed for the BA degree under the CUNY BA Program, 30 could be for a mix of life experience and independent study, the program can take credit for some innovative accomplishment. Although the CUNY BA Program demands that at least 90 of the 120 credits needed for the BA must be earned in the classroom, officials of that program did accept all credits awarded by LaGuardia while still permitting the maximum of 30 for life experience and/or independent study. Some of the trainees have been, or will be, awarded the BA with as many as 43 credits allowed for prior experience or for work copleted outside the college classroom.

D. Replication and Institutionalization

As a direct result of this project, NCLC was awarded a contract by the New York City Addiction Services Agency to manage and direct a special program for addicts to enter into training in private trade schools. Working together with ASA, the State Office of Drug Abuse Services, and the State Office of Vocational Rehabilitation, NCLC provides program operation and fiscal management services for up to 50 addicts.

Other programs and agencies have inquired about establishing similar models and we have provided them with consultation and technical assistance. In addition, we held a one-day symposium for interested people to discuss barriers to this model and how they might be overcome.

LaGuardia Community College has institutionalized the courses developed for this program in its mental health curriculum for other students.

The program has been extended through the end of March 1977 to allow more time for evaluation and follow-up activities.

E. Conclusion

Paraprofessionals whose experience and training are almost entirely limited to the field of drug abuse are in a disadvantageous position when funding for their programs is reduced. Most of them do not possess recognized skills and knowledge needed to make the transition to another field; employers outside the drug abuse field do not value their training and experience. The ex-addict has little chance to "make it" on his own in the competitive marketplace.

This education-experience-training program gives participants the ability to move out to broader, more generic fields and occupations.

The data gathered by NCLC during the course of the program will be disseminated for the information of organizations interested in replication and institutionalization.

CHILD DEVELOPMENT MODEL

A. Introduction

The 1970 White House Conference on Children estimated that $10 billion annually would be required for child care by 1980. The increasing number of working mothers and the growing attention accorded their needs both by public and private agencies and organizations leaves no doubt that increasingly large sums will be spent on such programs in the next few years.

The Senate Labor and Public Works Committee reported that more than 5 million pre-school children needed full or part-time day-care services while their mothers were away from home; that there were fewer than 700,000 spaces in licensed day-care programs to serve them.

The War on Poverty, particularly the Head Start programs, indicated that in addition to the babysitting function of all day care programs, there was an educational function which was beneficial to the child's social and mental development. Thus, the change in emphasis from child care to child development.

A wide variety of programs under many different auspices were established, from community-based ghetto operations to chains of franchised private day care facilities. All of these programs had a need for competent, well-trained people to staff their programs. New York City's Human Resources Administration estimated that there was a potential national need for 456,400 professionals and 529,000 paraprofessionals in the child development field. Only 5,000 college graduates and 10,000 paraprofessionals were entering the field annually.

In 1970, the Federal government established the Office of Child Development (OCD) for a concerted national effort to expand and upgrade the quality of child-development services. Funding for child development programs has been concentrated in this agency. Local agencies were established to dispense funds and monitor progress. In New York City, the Agency for Child Development (ACD) had this responsibility.

Recognizing the need for providing competent staff and for simplifying the confusing local and state licensing requirements, OCD funded 13 competency-based pilot training programs to initiate training for a new category of certified staff: the Child Development Associate (CDA) who is intended to be the backbone of professional child development center staff.

The new credential will be based, not on courses taken or units acquired, but on demonstrated competency. OCD describes the Child Development Associate as a competent professional person who is knowledgeable about pre-school children, can provide valuable experiences for them, and is capable of taking responsibility for the daily activities of a group of young children in day-care, Head Start, parent-child centers, private nursery schools, and other pre-school programs.

OCD assumes that the Associate will:

--Have available and be in close contact with more trained and experienced staff members (e.g. a master teacher) to provide personal and professional support;

--not have direct responsibility for the extended activities of the educational service; and

--have the assistance of a paraprofessional aide.

This delineation is an attempt to bring order out of a chaotic staffing system, standardize training, establish levels of competence, and offer to participants a career path with recognized and transferable credentials.

The child development field met many of our criteria: it was a large and growing field; it had a confused array of credentials, curricula, and training patters; it employed many paraprofessionals who had little or no opportunity for career advancement and the Federal CDA program was a strong indication that changes in existing patterns would be welcomed.

B. Development of the Model

Within New York City, child development was a rapidly expanding field. In addition to Board of Education sponsored programs, there were between 150 and 200 Department of Social Service day care centers, 122 Head Start Centers, some 1,000 homes used for family day care, approximately 500 private facilities of various kinds, and a number of new community-sponsored day care centers.

In 1970, New York City established a centralized Agency for Child Development under the Human Resources Administration, with responsibilities (except for those under the Board of Education) for funding and setting standards for staffing, training, and programming for all child-care centers. NCLC staff met with the administrator of the Human Resources Administration and the chairmen of the Task Force working to set up the Agency for Child Development (ACD) and its sub-committee on training and new careers. They suggested a significant role for NCLC in helping ACD with the difficult problem of constructing training models that would provide quality and flexibility and lead to recognizable, transferable credentials for child care staff.

In September 1971, ACD agreed to develop:

--Staffing patterns for child development centers;

--specification of skills and knowledge required for competent performance at different assignment levels;

--objective methods of assessing job performance; and

--a system for enabling paraprofessionals to assume higher assignment levels and for gaining credentials with the greatest possible economy of time and money.

A senior member of ACD's central administrative staff was assigned responsibility for carrying out its commitment to the project and serving as liaison with NCLC.

NCLC agreed to design a work-study educational model emphasizing on-the-job training, credit for previously gained knowledge, skills and work experience; and an academic curriculum which would permit continued full-time employment; to obtain an academic collaborator; and to involve state authorities responsible for licensing, accreditation, college proficiency examinations and external degrees.

We met with several private institutions and CUNY colleges. The problem of high tuition at the private institutions was not solvable. Child-development (pre-school) programming at CUNY community and senior colleges was at the early planning stage, colleges recommended as most promising would not be ready to discuss plans with us until late April 1972.

In May, 1972, we began discussions with two CUNY senior colleges and one community college interested in working with us. None were training pre-school personnel, but all were preparing to do so.

The City College of New York (CCNY) of CUNY, was on the verge of launching an experimental program for paraprofessional child care workers and an arrangement was proposed that NCLC share some of the costs of the project for our developmental grant funds. The program was to be related to an associate degree program to be developed at LaGuardia Community College, a new work-study college in the CUNY system. These arrangements were agreeable to NCLC. By August, however, CCNY's plans had to be abandaned because their funds were not forthcoming. College officials indicated they might be able to participate by September 1973.

Meanwhile, NCLC reached an agreement with LaGuardia Community College to design and conduct a program to prepare child development workers for the Child Development Associate credential and an associate degree in its Human Services Department.

LaGuardia worked out a collaborative agreement for the Hunter College School of Education of CUNY to provide the baccalaureate phase of the program.

NCLC established criteria for participating child development centers on the basis of a study of 15 centers and conferences with CDA staff and lay and professional leaders in the field.

The criteria were:

1. Willingness to participate actively in a task analysis; modify, on the basis of this analysis, its staffing patterns to provide for levels of responsibility based on the skills and knowledge needed, and to base job assignments, training, and salaries on the required competencies.

2. Willingness to integrate staff training and formal education.

3. A relatively stable administration and board, respect and cooperation of the community, and a demonstrated record of accomplishment.

4. Assurance of promotional positions for workers successfully completing the NCLC program.

5. Proximity to the colleges.

Other criteria were that the centers would; (a) have a minimum of three workers who were interested in training; (b) be able to release their paraprofessionals for two half-days each week to attend classes at LaGuardia; (c) provide on-the-job experience for day care interns (regular students) from LaGuardia College; (d) have a professional staff person who would qualify as a preceptor for both the paraprofessionals and the interns; and (e) provide the preceptor released-time to conduct training and attend meetings with the faculty of the college.

ACD identified 10 centers. When we were unable to reach an agreement with any of them, we decided to locate centers on our own. This was a frustrating process. Many centers were interested but could not participate for one reason or another. After a series of meetings, we were able to reach agreements with nine centers, seven of which were identified by LaGuardia.

The size of these nine centers varied. One served 15 children, another served 250. Some served only pre-school children (ages 3 to 6); some had infant and pre-school programs and others had after-school programs for school-age children.

Programs varied from extreme informality to a high degree of structure. Staffing patterns varied from an egalitarian approach (all workers perform similar duties regardless of education and experience) to formal differentiation of roles, duties, and status.

From the summer of 1972 to early 1973, NCLC employed two consultants to design and test task analysis procedures to determine:

1. Program activities in child development centers.

2. Centers' expectations of their staffs.

3. Goals and plans of the classroom team.

4. Specific activities performed, how they combine into tasks, and how tasks help achieve center objectives.

5. Relationships with children, parents, and community, and interrelationships among members of the classroom team and between members of the team and supervisory staff.

6. Use of community resources, information about children, educational and play materials, etc.

7. Competencies and competency levels exhibited by staff in the classroom. (A modification of the SKAD system was used. This broke competencies into: Skills to perform tasks involving data and things; Knowledge and understanding to perform tasks; Ability to perform tasks involving people; and Discretionary and decision-making demands of the job.)

Instruments were developed and tested in a field trial at two child development centers. Using observation and interviews we defined each classroom job in terms of major functions, tasks comprising these functions, and activities involved in carrying out each task; identified the skills, knowledge, abilities and decision-making employed at each job level for each task; and estimated the training needed by workers to reach these levels.

LaGuardia used these data to design the curriculum. The same approach was used to obtain data at six-month intervals in each of the nine cooperating centers to provide us with information to measure individual learning and competency and to indicate needed modifications in the curriculum and training.

C. Funding

NCLC submitted a synopsis of our training model to the Office of Child Development's Regional Office for funding. The synopsis was considered by the Regional Office, but as OCD had only enough money to fund a handful of programs for the whole country, we were turned down.

At this stage, LaGuardia agreed to assume the major costs of the program if NCLC could pay for the costs of evaluation, curriculum development, and ongoing technical assistance. NCLC provided a $5,000 development grant to LaGuardia for curriculum development, but LaGuardia needed some additional money. We supported their application to the New York State Education Department and sought funding from a number of other sources, including the Office of Economic Opportunity, several private foundations, and the Manpower and Career Development Agency of New York City.

In early 1973, the New York State Department of Education agreed to fund LaGuardia for the Child Development program.

D. The Model

1. Overview

NCLC collaborated with LaGuardia Community College, Hunter College, and nine child development centers to demonstrate how paraprofessionals in the field of child development could be trained and educated for improved job competence and enhanced career development.

The design of the program was based on an analysis of the skills and knowledge needed to perform tasks at beginning and higher skill levels. The program included academic study, in-service training, and work-experience--all college accredited.

Thirty-two paraprofessionals employed by the nine cooperating centers were selected and began their training in September 1973. They spent the equivalent of one day a week in formal academic study at LaGuardia, the equivalent of one day a week in structured in-service training and supervision in their agencies, and three days a week in regularly assigned work activities. When they earned associate degrees they were evaluated for recommendation for the Child Development Associate credential, if they wanted it.

At that point the students could work as CDAs with a recognized credential and could continue for a baccalaureate degree in early education.

In addition to the 32 paraprofessionals, the program included 18 LaGuardia day students who served as interns, obtaining work experience at the nine centers. The interns replaced the paraprofessionals on the job when they were attending classes.

It was expected that as the curriculum, based on classroom behavior and task analysis, was tested and refined in operation, the program would produce a body of generic knowledge applicable to many positions in the child development field.

2. The Trainees

The trainees were selected from among the classroom aides by the center directors of the nine participating child development centers. The trainees were adults with a variety of life and work experiences who met the college's entrance requirements. Some had prior college credits. This enabled them to enter with advanced standing. The interns had little work experience and were no more than one or two years out of high school.

Matching the paraprofessionals and interns had significant impact on the students, the college, and the profession. The trainees came to class with more life and work experience, and familiarity with the child development field. The dialogue between the two groups was beneficial to both.

Trainees were given tests in English and mathematics to determine their academic placement and remedial needs. Based on the joint findings of the NCLC task analysis and the academic requirements of the college, procedures were established to award advanced standing for prior work and academic experience; determine the needs of students to reach the prescribed level of competence for the CDA credential, and assess students progress in relation to the programs objectives.

Most of the paraprofessionals were female and between the ages of 20 and 35, the majority of them were married with children. Most of the paraprofessionals had completed 11 or 12 years of high school, and some had attended college. Although the majority of them did not speak a second language, there were a number who did speak Spanish and other languages.

The original program design had called for a one-to-one replacement of paraprofessionals by college interns, providing the centers with adequate coverage on

days that the paraprofessionals were attending classes at the college. However, there were not enough interns for one-to-one replacement, and the center directors had to make many schedule adjustments in order to provide adequate coverage on the days when paraprofessionals were at the college.

We had anticipated that many of the paraprofessionals would continue their education through the baccalaureate degree. To date, several of them have already graduated from a senior college. Others have currently enrolled. We had hoped that all of them would have also received the CDA credential. However, very few applied for this credential because they felt that the associate and baccalaureate degrees meant more than the CDA credential.

3. The College

LaGuardia Community College, one of 20 branches of the City University of New York, opened in September, 1971. It is the only unit of CUNY to offer work-study programs to all of its students. The college offers both career and transfer programs and offers the associate in arts (A.A.), associate in science (A.S.), and associate in applied science (A.A.S.) degrees.

LaGuardia operates on a year-round, four-quarter system, with each quarter of 13 weeks duration.

The college, in conjunction with the employing institutions and NCLC, developed the child development course of study which emphasizes the skills and knowledge identified in NCLC's task analysis.

The college awarded the 32 students associate in arts degrees upon completion of 66 credits.

The academic program included a core of human-service courses combined with liberal arts requirements and electives, with specialized electives comprising the child-development concentration. The college conducted the campus-based courses and structured and supervised the in-service training and work experience at the cooperating child development centers.

The students took between eight-and-one-half to twelve-and-one-half credits a quarter, completing the 66 credits required for the associate in arts in from six to eight quarters.

A basic tenet of the model, one that underpins the Child Development Associate credential, is that competencies can be developed best by interplay between practice and theory. The program used the laboratory approach to learning. Students were exposed in classroom to the theoretical "whys" of a concrete activity that they have experienced in practice, and were given immediate opportunity to interpret college-presented theory in the practical setting.

At the work site, weekly seminars were conducted by center directors and supervisors. These seminars provided a link between practical application and the theory learned at the college. They used demonstrations, case studies, role playing, etc. The objective was to help workers obtain functional competencies in the following areas:

1. Provide for the child's physical safety, health, and comfort.

2. Develop the child's physical coordination and dexterity (motor development)

3. Develop positive concepts of "self"

4. Foster the child's independence

5. Foster the child's sound growth

6. Increase the child's intellectual and language competence

7. Evaluate the child's performance and encourage achievement

8. Provide the child with new experiences, including aesthetic ones

9. Evaluate the child's individual and group progress

10. Establish positive relations with parents

11. Develop classroom management and maintenance skills

12. Establish positive working relations with other staff members.

After the task analysis, consultation with experts in the field, and discussions with the cooperating center supervisor-preceptors, four all-day conferences were held during the summer of 1973, to determine curriculum content, methodology and procedures, and to develop the linkage between college and work-site learning.

The college had a particular problem in dealing with credit for life experience and was not able to award such credits. However, they awarded each of the paraprofessionals one-and-one half credits per quarter for work experiences for a total of six credits. While this was not a great deal of credit, it was a movement in the right direction.

4. The Employer Agencies

The employers were nine centers located in Queens and on the Lower Eastside of Manhattan. Two of the centers were observed as part of NCLC's initial task analysis.

The nine cooperating centers were:

Better Community Life
Grand Street Settlement
Hallet Cove
Macedonia
Malcolm X
Negro Action Group
North Queens
Resurrection
Woodside

The centers serviced a total of 688 pre-school age children, with a classroom staff of 110. Each center designated one professional staff member to work with LaGuardia and NCLC to serve as preceptor, develop curriculum, receive preceptor training, supervise the on-site work of the paraprofessionals and interns, conduct on-site seminars, and provide the college with regular evaluation of students.

Preceptors attended monthly meetings and provided feedback between the centers and the college. In addition, LaGuardia faculty members visited each center twice a month to observe and provide on-site consultation for students and preceptors. The monthly preceptors' meetings provided opportunities for center supervisors to discuss common problems and share information and experiences in child development and staff training. Other members of the Centers' staffs were included in the on-site seminar sessions. A training manual with audio-visual components, linking child development learning theory more closely with classroom practice was developed.

It was expected that as opportunities in the centers opened, trainees who satisfactorily completed the program would be promoted. A key to the success of this model was the participation of group teachers with whom each trainee worked. LaGuardia held quarterly meetings with the group teachers to integrate them into the program.

The work-site training was started in conjunction with the core curriculum. It related closely to one of four subject areas in early childhood education and dealt with the pragmatic aspect of classroom teaching. It also served as a discussion group on problem children and other problems related to the care of young children. This tied in very closely with the course work at school, which dealt with the theoretical bases of early childhood education and specific problems such as discipline, nutrition, and conceptual understanding for young children. Curriculum materials were shared by college faculty and work-site supervisor.

The Center Directors were very much involved in curriculum development and provided the on-site work instruction. However, when the city was faced with a fiscal crisis, the first area which was cut was the college adjunct status of the directors. They are no longer personally involved in curriculum changes and they no longer teach a course at the worksite.

5. Policy Committee Role

The Policy Committee was a very strong, effective group. Its composition consisted of the nine center directors, the college faculty person who was in charge of the program and a representative from the National Child Labor Committee. The Policy Committee was involved in curriculum planning and changes, approval of evaluation and assessment techniques, and the discussion of program problems. It provided the necessary linkages among all participants and a monthly forum for airing grievances.

6. Role of NCLC

It was the responsibility of NCLC to identify the various parties who participated in this program. The Agency for Child Development was contacted initially and

offered little or no help in locating centers. Once we had found and reached agreement with LaGuardia Community College, their faculty assisted us in the search for qualifying centers. Each center that finally came into the program had had contact with both an NCLC staff person and a member of LaGuardia faculty.

They were told the nature of the project, that it had some rough guidelines and outlines, but that it was not completely formulated and that we wanted them to participate in the final design stage.

Throughout the period that the paraprofessionals were engaged in training at LaGuardia, an NCLC staff member attended each of the monthly policy meetings, made periodic visits to the centers, and coordinated evaluation and assessment efforts and procedures.

The evaluation was a composite of a variety of assessment questionnaires for both the college faculty and the worksite supervisor, observations by college faculty and observations by independent assessment teams, which were conducted twice a year.

The second round of data gathering for purposes of program evaluation was postponed so that NCLC could develop and test procedures and instruments for the assessment of the competencies of candidates for the Child Development Associate credential. NCLC received a $20,000 grant from the Child Development Associate Consortium for this purpose. This study was a natural concomitant to our earlier efforts at gathering baseline data. The findings of this study, which focused on the critical classroom tasks performed by experienced group teachers and paraprofessionals were published by NCLC in May, 1974. This work, in turn, led to another contract with the CDA Consortium in the amount of $32,550. Under this contact, NCLC conducted a field test of the critical task approach to evaluate the performance of Child Development Associates and the training program for assessors. The critical task approach tested was that developed by NCLC under the first grant.

In performance of the contract's required services, NCLC collected performance data on 40 Child Development trainees, using its observational and interview procedures. It also collected performance ratings by college staff on these trainees. Finally, it provided this data to the CDA Consortium for use in a reliability study of performance criteria. It was an attempt to validate the findings of the first study, using the students (paraprofessionals and interns) in our own program. Results of the study were fed back to the college, the cooperating centers and the students for program modification. NCLC's selection by the CDA Consortium to carry out these studies was an indicator of the impact our child development model and our task analysis have had at the national level.

E. Institutionalization and Replication

The child development model has gone through some significant changes since its first year of operations. For the first time in three years student enrollment is down. Paraprofessionals at the aide level have been cut back to 20 hours per week. This has caused some frustration among our paraprofessionals who have not been able to move up to the assistant teacher level. However, the CDA program

is being continued and expanded in spite of fiscal difficulties in the City of New York. The program is applicable for Head Start and other educational and development programs for young children. LaGuardia has been very resourceful in tapping other sources to identify more paraprofessionals and work-sites. Our basic fear is that current cutbacks in funding of day care centers will lead to fewer people entering the field.

The college has extended the program to some 38 day care centers, has initiated and set up a day care center at the college, and has worked with the Brooklyn Family Court in setting up a center for clients utilizing the court. NCLC has been serving as an information service to other day care centers and colleges which have shown interest in setting up similar models.

With some minor variations and modifications in the model, we feel that the cost of replication can be kept low. Where colleges cannot or will not participate, a group of centers can pool their professional resources and train their own workers for the CDA credential. Technical assistance is available from the CDA local assessment teams.

In March 1976, we held a one-day institute, "The Process of Developing a Competency-Based Training Program for Paraprofessionals in Day Care," to help others establish similar programs. Work-shops were held on task analysis, curriculum development and evaluation and organization at the worksite. The week following the conference was an active one as we had calls from several of the participants seeking information or asking for appointments to talk to NCLC staff concerning the project.

F. Conclusion

When the Office of Child Development announced the creation of a competency-based CDA credential, NCLC considered designing training programs without college credit tp qualify paraprofessionals for this credential. We decided against this approach as the CDA credential had not yet been established and the college degree would open up other opportunities for upgrading and mobility.

The child development worker in this program has several upgrading opportunities: movement to an assistant teacher position; application for the CDA credential; continuation for a baccalaureate degree in early child education; and movement to a related human service or education field. The four-year degree will open other options: group teacher, supervisory or administrative positions, and public school teaching. This career lattice will be available to recent high school graduates as well as to adult workers. Work-study programs provide young people with experience in a career area before fully committing themselves. Our child development program can serve as the basis for other areas and other occupations.

OCCUPATIONAL THERAPY MODEL

A. Introduction

Occupational therapy is a health profession which employs purposeful activities to improve physical and emotional well-being. The patient is an active participant in the use and development of manual and social skills directed toward attainment of immediate and ultimate life goals. The occupational therapist evaluates the patient's work habits, endurance, motivation, abilities, and physical, cultural, and psychological characteristics in relation to his goals, potential and achievement.

When we examined this occupation, the demand for occupational therapy services was increasing more rapidly than qualified personnel were being trained.

The Bureau of Labor Statistics estimated the average annual number of openings for OTs to 1980, at 1,150 a year; for OT assistants, 1,300.

The American Occupational Therapy Association (AOTA) estimated that 7,800 OTs were working nationally as of November 1971 and that the 36 accredited schools were graduating about 780 students a year.

In 1969, the New York State Department of Health surveyed full and part-time OTs employed in hospitals in the state and found more than 330 unfilled, budgeted positions--33 percent of the total budgeted for OTs. Additional positions were needed but unbudgeted. A 1970 study by the Department recommended that New York try to reduce its dependence on out-of-state schools for the training of OTs by supporting additional schools within the state.

Occupational therapy services are needed and used in a steadily increasing range of health and mental health facilities, including hospitals, rehabilitation centers, nursing homes, schools, and home health-care agencies.

Far-reaching changes in health-care facilities and patterns of care have taken the OT field well beyond its traditional functions and work sites. Prevention of illness and disability through community information and education programs is increasingly emphasized. OTs are serving as staff members and consultants for a widening range of community-based facilities and services, such as halfway-houses and store front centers. OTs are key members in the team approach to prevention, treatment, and rehabilitation. There will be increased utilization of OTs as local programs expand and centralized institutions are decentralized.

Restructuring of the OT profession and upgrading of paraprofessional skills are needed to reduce costs and increase the number of trained therapists. This includes new staffing patterns, retraining of present staff, and new educational programs.

The credentials required for an occupational therapist are a bachelor's degree in OT and registration by the American Occupational Therapy Association. The latter is obtained by successfully passing an examination. Some states, such as New York, have recently passed licensing requirements.

About 15 years ago, AOTA adopted the concept of training and utilizing OT assistants. These workers, Certified Occupational Therapy Assistants (COTA) are trained in either a 20-week hospital-based program or a two-year community college program. The community college program is preferred because the academic credits earned are often transferable to baccalaureate programs.

Unlike most other professional associations, AOTA is actively seeking to open the profession to persons who can demonstrate OT knowledge and skills, however obtained. AOTA passed a resolution making it possible for a Certified Occupational Therapy Assistant without a baccalaureate degree to sit for the registry examination.

OT departments in every health institution employ workers in assistant and aide-type positions who are familiar with OT work and have developed some skill and knowledge of OT. If given opportunities for advancement, these workers can provide an excellent and largely untapped source of OT skills.

In addition, there is a much larger pool of aides, attendants, and assistants with similar attributes and skills in health institutions. Many are from minority groups. Their familiarity with minority community needs and problems can be valuable as the delivery of O.T. services moves into poor communities. These workers are barred by economic conditions from attending existing programs.

B. Development of the Model

Early in 1970, NCLC explored the possibility of obtaining a major New York State agency as a collaborating employer. Meetings were held with the President of the State Civil Service Commission and her staff, the Commissioner of Health, the Health Department's Director of Special Manpower Programs, and officials of the Department of Mental Hygine.

The State Department of Mental Hygiene (MHD) was deemed the most appropriate agency. It had 55,000 employees, many at the paraprofessional level, and a commitment to the union representing these employees to develop career ladders and appropriate training programs in nine occupations.

Career ladders were established but were incomplete or deadended at several rungs. Rigid requirements for licensing and credentialing at the associate, baccalaureate and graduate degree levels were bars to advancement. No provision was made for accrediting work experience or in-service training.

It took little effort to obtain the Department's commitment to participate with NCLC in a demonstration program.

The nine human service occupations were examined jointly by NCLC and MHD from the standpoint of the existing and future manpower and service needs of the Department. Of the nine occupations, physical therapy had the highest percentage of vacancies. Occupational therapy was second. However, there are four times as many OTs as PTs, and occupational therapy is more important in mental hospitals.

The seven other occupations considered were

--Psychiatric nursing, psychiatric social work, speech therapy, hearing therapy, and recreation therapy. Each had too few workers to serve the project's purpose;

--Psychology. This called for a Ph.D. degree;

--Mental health generalist. This was a new occupation whose roles and functions had not been delineated.

OT was the natural choice.

An agreement was reached in January 1971 for MHD to change the job specifications for the OTs it employed, to design a career ladder, and to recommend an appropriate institution for a demonstration project.

NCLC agreed to design the training model and to identify and involve colleges and licensing and accreditation agencies.

Negotiations were undertaken with a number of hospitals identified by MHD. The head of one hospital proposed that we replace OT with a new profession: rehabilitation specialist. After discussions with several consultants, it was determined that our goals would not be met by preparing workers for a new and ill-defined profession.

Extensive negotiations with another hospital with a strong in-service training program, were discontinued after several months when statewide cutbacks in the MHD budget resulted in a job freeze that raised doubts that the hospital would be able to carry out its commitments to provide promotional opportunities.

NCLC's continued search for a clinical collaborator led us, at the suggestion of MHD's manpower utilization specialist, to Rockland Children's Psychiatric Hospital (RCPH), a new facility with no training programs. The hospital director was most cooperative. However, RCPH could provide only four trainees at one time, and OT experiences solely in the children's psychiatric setting. There was a need for other institutions to provide trainees and further clinical experiences. At this time, the State job freeze was lifted, and RCPH's Director obtained the cooperation of three other Rockland County State hospitals.

The State Health Department agreed to permit one of its institutions to be part of the consortium. This is important since training opportunities in OT must include work experiences in physical rehabilitation medicine as well as in mental health.

The three other institutions who agreed to collaborate are:

--Rockland State Hospital: A MHD inpatient psychiatric facility which provides care and treatment for patients 18 years of age and older.

--Letchworth Village: a MHD inpatient facility which provides care and treatment for mentally retarded persons three years of age and older, and special care for the retarded with physical handicaps.

--New York State Research and Rehabilitation Hospital: a State Health Department residential treatment center and out-patient clinic for the physically handicapped of all ages.

RCPH itself is a MHD inpatient facility which provides care and treatment for children from six to 16 years of age.

MHD agreed to offer graduates employment and if the program was successful to use the model at other MHD institutions.

Early in 1971, AOTA officials endorsed the concept and agreed to participate in the development of the program and to provide consultant assistance during the planning stages. The director of AOTA's Committee on Standards and Educational Requirements was designated as liaison to the project and participated in program design and curriculum development.

The Hunter College Institute of Health Sciences indicated an interest if we could obtain community college participation, since the Hunter Institute offers only the third and fourth years of a baccalaureate program. Contacts with City University of New York community colleges produced no results.

However, Rockalnd Community College, part of the State University system was interested and we quickly reached an agreement. Rockland Community College was already conducting educational programs for employees in the four collaborating clinical institutions. The State University of New York and the State Department of Education had designated the college to develop curricula to prepare workers in a wide variety of human services agencies.

With a commitment by RCC, the Hunter Institute agreed to offer the two-year senior college program for OTR's. The facilities of the clinical institutions enabled both Hunter and RCC to open OT programs without the prohibitive cost of setting up clinical laboratories. Their qualified OT personnel are available to augment the instructional staff of both colleges.

From November 1971 through May 1972, a planning committee met regularly to prepare a comprehensive funding proposal. The committee consisted of representatives of the clinical and academic institutions, AOTA, NCLC and State manpower consultants. The committee decided that a job analysis was essential if we were to effect changes in OT preparation and practice, and that a curriculum should reflect the job analysis and new trends in the OT field. NCLC provided a $5,000 developmental grant to RCPH for the conduct of the analysis.

Of considerable importance to the job analysis was a study conducted at Ohio State University. RCPH's chief OTR conferred with the director of the Ohio State study regarding the kind of issues to raise in structuring the local job analysis. Jobs performed by OTs and OT Assistants in the four hospitals were studied to obtain information which would: (1) distinguish the tasks performed by OTs and assistants; (2) determine the kinds of experiences which could be given academic credit; (3) provide the basis for developing classroom and clinical curricula; and (4) indicate needed preceptor training.

The OTR and OT assistant positions were analyzed. Questionnaires relating to tasks performed and estimates of their relative importance were administered.

These were spot checked at one institution. There was good agreement among respondents and with the field check.

Job analysis findings led to a redefinition of roles for OTRs and COTAs to include functions not in the task analysis and to reallocate tasks for more effective use of the work force. The new OTR role is supervisor, consultant, educator and highly trained specialist: the COTA role is that of "general practitioner."

The activities of OT personnel were defined:

1. Evaluate the individual's need for activity by eliciting information from interviews, tests, reports, records and other sources which indicate the nature and extent of impaired functioning; the nature and level of work capacity, attitudes and self-care skills; and the need for remedial activity.

2. Plan activities appropriate to the individuals defined needs and goals by identifying the kind and level of learning which needs to occur, and in what order; selecting appropriate activities; identifying the skills required to perform these activities;; identifying contraindications for involvement in a given acti... consulting with other staff, and investigating resources in the agency, other institutions, the community, and in the home.

3. Facilitate and influence the individual's participation in activities by counseling the individual in preparation for, and participation in, activities; utilizing and reinforcing the individual's stage of development and level of functioning; using group and interpersonal dynamics to engage and maintain the individual in the activity.

4. Evaluate response and assess and measure change and development by observing progress, testing, consulting with other staff, and discussing progress and reviewing goals with the individual.

5. Validate assessments, share findings, and make appropriate recommendations by retesting, modifying evaluation procedures; comparing findings with reports of other individuals and actvities; summarizing for further interpretation and planning, and preparing oral and written reports for other staff.

Under the task analysis data, a curriculum covering both academic and practicum elements was prepared by a subcommittee composed of the Dean of Academic Affairs at the Hunter Institute, two OTR consultans, and NCLC's liaison representative to the OT program.

Six broad areas were identified:

I. Generic Knowledge and skills
II. Normal growth and development
III. Cognitive and perceptual motor dysfunctions
IV. Physical dysfunctions
V. Daily life tasks, including vocational evaluation and training
VI. Psychosocial dysfunctions.

Areas I and II are common to all allied health occupations and could be used as the basis for a core curriculum.

C. Funding

A first draft of a grant application was prepared for submission to the Bureau of Health Manpower Education of the National Institutes of Health in early 1972.

A revised draft application was submitted early in June and a formal application was submitted June 30, 1972.

As NIH's decision was delayed, we requested the New York State Department of Civil Service to include this proposal in its Public Service Careers Contract. We were turned down.

After considerable correspondence, a series of meetings and an aborted site visit, we were informed, in April 1973, that our proposal had been approved by the Council and Review Committee at BHME, but that no funds were available. We turned our attention to private funding sources such as the Johnson, Carnegie, and Rockefeller Foundations. However, in June 1973, BHME notified us that $204,533 for the first year of our proposed five-year program was approved effective July 1, 1973. We were one of only three programs funded nationally by BHME.

D. Overview

A consortium of four New York State Hospitals, two degree-granting institutions, the New York State Departments of Health and Mental Hygiene and the American Occupational Therapy Association collaborated with NCLC in designing and implementing the project.

Up to 16 workers on full salary status were enrolled annually for a four-year period. Their goals were to become certified occupational therapy assistants (COTA) and registered occupational therapists (OTR). The education based on job analysis, combines clinical practice in the hospitals with academic instruction at the colleges and in the hospitals.

The clinical institutions--Rockland Children's Psychiatric Hospital, Rockland State Hospital, the New York State Research and Rehabilitation Hospital, and Letchworth Village--pooled training facilties and trainees to provide broad, diversified experiences.

The collaborating colleges--Rockland Community College and the Hunter College Institute of Health Sciences--initiated OT programs using the hospitals as laboratory facilties. They credited clinical and academic work conducted at the work sites by college instructors and staff of the employing institutions. The two college components were articulated to eliminate duplication of academic work.

The participants were prepared to perform the newly defined COTA and OTR roles.

The collaboration among employing and academic institutions, a professional association, a union, State agencies, and a national voluntary agency, makes this project unique.

The participating institutions were organized into a Consortium for Occupational Therapy Education (COTE). The founding members as shown in the list below included four hospitals, two colleges, two departments of the State of New York, a professional association, and the grantee. In 1975, a hospital and a college were added, and in 1976, the final hospital joined the COTE.

Founders, 1975

National Child Labor Committee (Grantee)
Helen Hayes Hospital
Letchworth Village Developmental Center
Rockland Children's Psychiatric Center
Hunter College School of Health Sciences (CUNY)*
Rockland Community College (SUNY)
Department of Mental Hygiene
Department of Mental Health
American Occupational Therapy Association
Wassaic Developmental Center
Dutchess Community College
Harlem Valley Psychiatric Center

The COTE is a temporary system. It was organized in June 1973, for the duration of the grant, when the program was funded by the Bureau of Manpower Education of the National Institutes of Mental Health. The grant was originally for five years, but it was cut back to four years in 1974.

The general purpose of the COTE is to demonstrate a model for training allied health personnel on technical and professional levels, in which non-professional hospital employees are the trainees and hospital clinics are the major educational site.

*In 1975, HCSHS withdrew plans for initiating an OTR program. The COTE program was transferred to the CUNY Baccalaureate, an external degree program.

E. Objectives

A series of nine objectives was established for the program:

1. To demonstrate an alternative route to COTA and OTR credentials for nonprofessional health employees that is shorter, more relevant, and more economical than conventional routes;

2. To increase the supply of qualified health personnel by broadening the population base from which they are drawn, and by recruiting applicants from educationally and socioeconomically disadvantaged groups;

3. To develop and utilize a curriculum which integrates academic learning and job experience and which can be used as a model in a variety of situations.

4. To articulate community and senior college programs in occupational therapy education;

5. To develop a group of occupational therapy professionals with greater ability to relate to clients, professionals and nonprofessionals working in health and mental health delivery systems;

6. To restructure the roles of COTA's and OTR's in State institutions, to maximize the utilization of their professional skills, and to facilitate the expansion and change of service roles of occupational therapy personnel as consultants and specialists in the coordinated delivery of services in many settings including both institutional and community;

7. To develop a professional career mobility program within the State Health and Mental Hygiene Departments for low-level employees;

8. To recruit 80 hospital employees for the program, sixteen a year for five years, four from each of the participating hospitals;

9. To develop a program model which can be replicated efficiently in a variety of institutions and in different localities.

The balance of this OT report discusses the processes for achieving each objective and the successes and failures we experienced.

> Objective 1 - To demonstrate an alternative route to COTA and OTR credentials for non-professional health employees that is shorter, more relevant, and more economical than conventional routes.

The conventional routes to COTA and OTR credentials are programs of academic studies followed by apprenticeship periods in occupational therapy clinics. We have tested an alternative route in a program that combines academic studies and clinical work in which the students are non-professional hospital employees. The assumptions are that the combination of experiential learning and experienced trainees would lead to a shorter and more relevant route to credentials. It was expected: 1) that previous life and work experience would be evaluated and awarded some college credits; 2) that experienced hospital employees would learn

more quickly; and 3) that new educational methods of individualized learning and learning modules would replace the conventional academic setting.

These expectations were not realized in the COTE program: 1) the academic institutions had not established a method to evaluate life and work experience and therefore would not award life experience credits to the COTE trainees; 2) hospital experience of the trainees contributed little to their ability in the O.T. curriculum. Their previous experiences were in caretaker positions, with little exposure to creative occupational therapy programming. New ways of thinking about themselves and about patient treatment had to penetrate the barriers of habits built up over the years. Furthermore, there was a deliberate selection of trainees from disadvantaged backgrounds who required more time to become acclimated to the searching analysis of self, patient, and treatment methods of occupational therapy than academically oriented middle-class students would require; 3) new educational methods were rarely utilized. The academic institutions maintained the semester format, thus keeping each year's trainees in the same level regardless of ability. In addition, the faculty had no training and little orientation in methods of teaching other than what they had experienced in their own conventional education. The COTE program was not shorter, except in the sense that it took the same amount of time as a conventional program while the trainees were also working on a half-time basis. We feel that the model described here is certainly more relevant.

The consortium of clinical institutions--Rockland Children's Psychiatric Center, Rockland Psychiatric Center, Helen Hayes Hospital and Letchworth Village Developmental Center--have pooled their training facilities for broader, more efficient and more economical training than any one institution could offer. The training staffs of academic and clinical institutions have been pooled to strengthen the effectiveness of both. Employers retain trainees at full salaries throughout training while rearranging schedules to facilitate training.

The collaborating colleges--Rockland Community College and Hunter College School of Health Sciences--have initiated O.T. programs without needing to construct costly new laboratory facilities. They are accrediting clinical and academic work conducted at the work sites by regular college instructors and qualified staff of the employing institutions.

> Objective 2 - To increase the supply of qualified health personnel by broadening the population base from which they are drawn, and by recruiting applicants from educationally and socioeconomically disadvantaged groups.

In general, the trainees represent a different population from the average occupational therapy practitioner in sex and ethnic/cultural background. For example:

- the age of the trainees ranges from 21 to 48. More than half of them were over 30 years old at entry to the program.
- About 3/4 are women and 1/4 are men. This is a higher percentage of men than is usually found in occupational therapy.
- Almost 1/3 of the trainees had no previous college education.
- More than 2/3 of the trainees had more than five years experience as workers in state hospitals.
- More than 70% were in lower ward personnel grades 5 - 9 at entry to the training program.

The supply of qualified occupational therapy practitioners in Rockland and Dutchess Counties has been increased. Thirty-five State hospital employees have become COTA's by participating in the COTE program and ten of these are progressing toward the professional OTR status. Fourteen additional employees are in training for certification as OTA's.

The selection process was modified each year to provide the selection committee with more objective instruments. The procedure that was utilized in the selection of the last group of trainees is as follows:

Applications and recruitment notices were sent to the education and training directors of the participating hospitals, with instructions to post the notices in locations where all employees would have access to the information. The applications were distributed to employees on request. Applications were to be completed and returned to the hospital personnel office by a specified date. Between ten days to two weeks were allowed for the filing of applications. Then a selection committee for that hospital, designated by the education and training director or the personnel director, reviewed the applications for eligibility based on the applicants' job performance and the willingness of supervisors to manage their units without the applicants' services. This latter point caused some problems since some of the most able and deserving employees were denied the opportunity to apply. Applicants who passed this review were then interviewed by a COTE selection committee.

The applications were then sent to the project office where they were reviewed for eligibility on the basis of previous education and employment in patient services. The acceptable applicants in each hospital were interviewed and tested by a selection committee composed of an OTR preceptor, O.T. chief from another hospital, and a college coordinator. A group of up to 12 candidates was assembled for a 30-45 minute group discussion where information was exchanged about the individuals and about the program. The candidates were then tested on reading ability, ability to follow directions and language skills.

The group next participated in a group activity to observe group process and the individuals' interactions. The candidates were then given a macramé activity to do, to test ability to read and follow directions. This was followed by an interview of each candidate by a member of the selection committee, in which motivation and aspirations were probed. The entire process was repeated for each group of candidates.

Objective 3 - To develop and utilize a curriculum which integrates academic learning and job experience and which can be used as a model in a variety of situations.

Qualified O.T. practitioners are educated and trained in physical and psycho-social dysfunction. As defined by the professional association:

> Occupational therapy is the art and science of directing man's participation in selected tasks to restore, reinforce and enhance performance, facilitate learning of those skills and functions essential for adaptation and productivity, diminish or correct pathology and to promote and maintain health. Reference to occupation in the title is

> in the context of man's goal-directed use to time, energy, interest and attention .... Occupational therapy provides services to those individuals whose abilities to cope with tasks of living are threatened or impaired by developmental deficits, the aging process, poverty and cultural differences, physical injury or illness, or psychologic or social disability .... (AOTA, 1975)

The certified occupational therapy assistant (COTA), at the technician level and the registered occupational therapist (OTR), at the professional level, require knowledge, skills, and clinical education affiliations that are obtained in programs that have been approved by AOTA. The OTR is a senior college or master's degree program, followed by a national examination given by AOTA. The COTA is awarded by AOTA after completion of an approved course of study and clinical education. COTA programs are usually located in technical institutes or community colleges. Most of the COTA programs carry an associate degree, but some are certificate programs.

In more traditional O.T. education, field experience is deferred until after formal academic learning takes place. Such an arrangement usually means that the learning of theory and its placement in practice are widely separated by time.

A major innovation in the delivery of educational experiences developed by the Consortium is the rotation of students. In this model, students learn most of their occupational therapy skills in the participating institutions, working with selected patients under the guidance of registered occupational therapists or other personnel with special skills and qualifications.

Two additional aspects of the integrated curriculum are unique. One is the deployment of full-time clinical educators in the hospital O.T. clinics. The other is the use of a curriculum and student evaluations based on specified learning objectives.

Initially, the COTA program was designed to grant an associate degree from Rockland Community College and certification from AOTA. It was 21 months in length, spanning four full semesters and two six-week summer sessions. In the first year, the trainees were in classes three days of the week and in O.T. clinical work two days. In the second year of the program, the trainees were in classes two days a week and in the O.T. clinical work three days a week. This format prevailed for the first two years of the Consortium program.

The Consortium found it necessary to alter its assistant program at Rockland Community College for the last two years of the grant due to economic situations within the participating state hospitals. The four state hospitals from which trainees are recruited were no longer able to release employees for more than one year of training. In response to this and in order to fulfill the grant's goal of offering educational opportunities to employees of these institutions, it was necessary to change the OTA program from a two-year associate model to an 11-month certificate model. Rockland Community College was requested to award a certificate in O.T. for the 11-month program, but the administration did not comply. We relied solely on the AOTA certificate.

The certificate model carries the same number of O.T. course credits as the AAS degree model. This was accomplished by working outside of the traditional semester system and shortening the length of courses while still satisfying the contact hours necessary for the amount of credits the course carries.

Four general studies courses were deleted from the certificate model. They were:

English II	- 3 credits
Sociology	- 3 credits
Speech	- 3 credits
General Psych.	- 3 credits

Trainees can complete these courses on their own time if they are not released by their employing institutions. The remaining six general studies courses were taken on a regular semester basis.

There are 49 credits in the certificate model and 61 in the degree model. It is possible for the trainee to complete the degree by enrolling for the additional 12 credits at his own expense. The objectives and course content of the O.T. courses were not changed.

Both the degree program and the certificate program offered more than the minimum essentials in class contact hours required by AOTA. The degree program was surveyed by a professional team appointed by AOTA, and officially approved. The modification of that program to a certificate format also received AOTA approval.

The baccalaureate level of training was initiated in the third year of operation to continue the training of qualified participants. The objective of integrating academic learning and job experience was extended into the baccalaureate level. Admission to the baccalaureate program required a separate set of procedures.

Objective 4 - To articulate community and senior college programs in occupational therapy education.

The COTE staff has designed a COTA and an OTR curriculum based on a comprehensive task analysis. The curriculum is built on skills and knowledge that are required for competence at increasing levels of responsibility. It structures and sequences work-site learning experiences that are related to classroom activities.

Trainees who have completed the COTA curriculum and who have met the admission criteria of the CUNY Baccalaureate/Hunter College School of Health Sciences are qualified to enter the professional OTR level training. Because all of these students are COTAs, a level I field work experience and a general anatomy and physiology course, which are customary in baccalaureate O.T. courses, have been eliminated from regular baccalaureate requirements.

The original plan for the baccalaureate in O.T. was a two-year program of professional courses, clinical application and liberal arts and sciences, for a total of 67 credits in the junior and senior years at Hunter College. A series of events, traceable to the economic recession, forced a change in the plan. Hunter College had to relinquish plans for an O.T. program. The CUNY baccalaureate program provided a substitute program that was acceptable to the AOTA. Since the

grant was cut back to four years,only the first year's entrants would have the opportunity to complete their OTR training. The greater flexibility of the CUNY baccalaureate program permitted us to change the OTR format. In the modified plan, the professional courses were taken in the junior year. The fourth year was devoted to liberal arts and science courses that did not require our supervision or sponsorship. The modification permitted us to offer the OTR professional courses to the second as well as the first group of trainees. Six trainees completed OTR training in the 1975-76 program and six have been accepted in the 1976-77 program.

Objective 5 - To develop a group of occupational therapy professionals with greater ability to relate to clients, professionals and non-professionals working in health and mental health delivery systems.

Our curricula stress interpersonal relations and the trainees are evaluated on their ability to relate to clients, professionals, and non-professionals in their O.T. clinic assignments.

To test the trainees' abilities to relate to clients, the evaluation design included comparisons of consortium students with cohorts in other occupational therapy programs. Students in the occupational therapy assistants program at LaGuardia Community College and our students were compared on demographic characteristics and on attitudes towards psychiatric dysfunction, physical dysfunction and dysfunction. In September, 1975, we added the baccalaureate and certificate programs. There is no program comparable to the certificate program within a reasonable distance. However, there are baccalaureate programs in the area and the program at Columbia University was selected for comparison.

The O.T. program at Columbia admitted 14 students in September, 1975, all in their junior year. The consortium program had seven students in the baccalaureate program. A more complete comparison was made when the Consortium admitted the second class of baccalaureate students, in September, 1976. In the interim, it may be noted that the Columbia students are all white women with an average age of 22, the 31 COTE students have an average age of 34.6 years,25% are men, 39% are black, and 10% are Puerto Rican. The Consortium students came from families in which most of the fathers had no college education. Five completed high school only, one did not finish high school and one father had some college. Of 12 Columbia students who answered the question, two fathers had professional degrees, four were college graduates, two had some college education for a total of eight with more than a high school education. It is obvious that the two programs are educating O.T.s with different background characteristics.

Comparisons of the attitude questionnaire results have been computerized but the information will not be complete until all the tests have been given. Until the full results are available, interim findings are briefly reported here.

The groups that are compared in this report are:

1. 14 faculty members associated with the Consortium and with LaGuardia Community College

2. 16 Consortium students who were selected from the staffs of the occupational therapy departments of the four participating hospitals, six of whom entered the Consortium baccalaureate program in September, 1975

3. 14 students who entered the Occupational Therapy program at Columbia University in September, 1975.

Under the assumption that faculty are role models for students, and that students will emulate faculty opinions as they progress in their training, it was hypothesized that students' opinions about dysfunctional patients will differ from faculty opinions at the beginning of the training period and will be similar to faculty opinion at the end of the training. Stated in the form of a null hypothesis: There will be no difference between faculty and students in their opinions about patients with psychiatric, physical or developmental dysfunction, as measured by the factors in the three opinion surveys, at the beginning or the end of their training, and tested by the statistic "t," at the 5% probability level. (See Table I.)

There are 19 factors embedded in the three attitude surveys. In almost every factor, the differences between faculty and Consortium students are greater than the differences between faculty and Columbia students. However, very few of the differences are statistically significant.

The mean scored differences on the authoritarianism factors in the survey of opinion about mental illness and mental retardation were significant for the comparison of faculty and COTE students, $p = .007$, on factor 1 and on factor 17 as well as for the means of the scores for the total survey on opinions of mental illness ($p=.02$).

Several of the items in the authoritarianism factors were taken from the California study of the authoritarian personality. In terms of the items on the survey instruments, the authoritarian person believes that dysfunctional patients are morally inferior people, that they are not to be trusted and cannot benefit from education. The best that can be done is to maintain them decently but separated from society. That non-professional employees of state hospitals hold these opinions is not unusual. The findings are in line with other studies of workers in residential institutions.

The factor scores of Columbia students, with little or no working experience among dysfunctional patients were closer to the faculty, yet the difference was nearly significant at $p=.062$. Columbia University student opinion differed more from faculty than COTE students opinion on the hopelessness factor 19 in the survey of opinion about mental retardation: $p=.121$ vs. $p=.066$. One-fourth of the group of Consortium students in the comparisons presented here are employed by the residential institution for the mentally retarded, and one-fourth are employed in work with psychiatrically disturbed children, many of whom are judged to be mentally retarded to some unknown degree. (It is difficult to test them.) Possibly an attitude of hopelessness would preclude an ability wo work with mentally retarded patients.

The re-test at the completion of the program will be of interest in evaluating the effectiveness of the faculty as role models and in evaluation of increased ability to relate to clients. Additional evidence on improved interpersonal relationships will be available from the preceptors' evaluations of trainees in O.T. clinic situations.

T ABLE 1. Comparison of O.T. Faculty and O.T. Students in COTE and Columbia University: 't' test of mean differences of factor scores for three opinion surveys

	Col. A[a]	Col. B[b]	Col. C[c]	Col. D[d]	Col. E[e]
Opinions of Mental Illness					
1.	Authori-tarianism	7.411		2.924	.007**
			3.321	1.955	.062
2.	Benevolence	1.875		.892	.381
			-1.500	-.661	.500+
3.	Mental Health Ideology	-1.929		-1.476	.152
			-2.500	-1.579	.127
4.	Social Re-strictiveness	3.214		1.729	.095
			-.571	-.325	.500+
5.	Interpersonal Etiology	1.500		1.001	.326
			-571	.445	.500+
	Total	12.071		2.449	.021*
			-1.821	-.439	.500+
Opinions of Physical Handicap					
6.	Social Strain	1.848		1.180	.248
			.143	.073	.500+
7.	Inferiority	-.098		.063	.500+
			-.857	-.630	.500+
8.	Dependence	.438		.250	.500+
			.571	.317	.500+
9.	Benevolence	1.491		1.724	.096
			-.143	-.167	.500+
10.	Personality	1.705		.808	.426
			-.531	.312	.500+
11.	Primary Relations	.357		.277	.500+
			0	0	0

TABLE 1. (continued)

Col. A[a]	Col. B[b]	Col. C[c]	Col. D[d]	Col. E[e]
OPH				
12. Etiology	.187		.239	.500+
		.615	.779	.444
13. Revulsion	-.607		.626	.500+
		-1.357	1.194	.244
Total	4.946		.628	.500+
		-1.102	.142	.500+
Survey of Opinion (Mental Retardation)				
14. Segregation via Institutionalization	-2.434		-1.068	.295
		.357	-.212	.500+
15. Cultural Deprivation	-1.400		.837	.410
		1.529	.999	.327
16. Non-Condemnatory	.006		.004	.500+
		1.429	1.043	.307
17. Personal Exclusion	1.657		.624	.500+
		1.657	.689	.497
18. Authoritarianism	7.797		2.976	.007**
		-2.500	-1.155	.259
19. Hopelessness	2.190		1.603	.121
		2.929	1.926	.066
Total	-7.494		-1.179	.249
		4.700	.904	.375

a names of surveys and factors

b difference in mean scores, faculty vs. COTE students

c difference in mean scores, faculty vs. C.U. students

d 't'

e probability

** $p \leq .01$

* $p \leq .05$

Objective 6 - To restructure the roles of COTAs and OTRs in State institutions, to maximize the utilization of their professional skills, and to facilitate the expansion and change of service roles of occupational therapy personnel as consultants and specialists in the coordinated delivery of services in many settings including both institutional and community.

The ability of the O.T. Departments to restructure the roles of COTAs and O.T.R.s in New York State institutions is affected by: 1) budgets; 2) availability of trained personnel; and 3) policy decisions concerning the allocation of "items"--budgeted positions--in departmental budgets. For example, the trainees in the COTE program whose items are on the nursing department budget cannot transfer that budget item automatically to the O.T. Department when they finish their O.T. training. However, if there is a vacancy in an appropriate O.T. item, a qualified employee can be appointed on the item and the grade level can be adjusted. One or more of these limitations affect the hospitals in the Consortium. Interviews were held with representatives of the O.T. Departments, usually the director, to obtain current information about the structure and operation of the O.T. Departments.

The COTE presence in the state facilities has not had the expected effect up to this time. Occupational therapy programs that were instituted by the preceptors and the trainees were either continued in a weak form after the trainees left the site, or were discontinued. The expertise of the preceptors was not welcomed or well used by the O.T. Departments. The preceptors' attempts to institute new or expanded programs were often thwarted by hospital personnel who appeared to resent the intrusion into their domains.

Objective 7 - To develop a professional career mobility program within the State Health and Mental Hygiene Departments for low-level employees.

Early in the implementation of the project it became clear that problems exist with the Civil Service Career Ladder for Occupational Therapy in the State of New York. A major problem is the failure of the Career Ladder to award credit for persons receiving certification as Occupational Therapy Assistants. According to the Career Ladder, the accumulation of 60 college credits for an Associate degree enables an individual to move up the occupational therapy Career Ladder to positions just under registered therapists. This requirement means that persons who have acquired random college credits regardless of which area they are in can move to fairly high positions in the Career Ladder without any specific O.T. course work.

The second problem with the Career Ladder was the existence of an examination for movement up the Career Ladder. Known as the Trainee I examination, it is a general test of knowledge but has nothing to do specifically with O.T. skills.

The existence of these and other deficiencies in the Career Ladder became a major source of concern and discussion at a symposium conducted by the Consortium in May of 1974. At that time, it was specifically recommended that an Interdepartmental Task Force be pulled together to concern itself with recommendations for change in the Career Ladder structure. The Interdepartmental nature of the Task Force was felt to be significant because both the Departments of Mental

Hygiene and Health were involved in the utilization of occupational therapy personnel and had a high stake in the improvement of the Career Ladder. In addition, it was felt that the interdepartmental nature of the structure would do much to help insure the eventual acceptance of its recommendations by the State Department of Civil Service.

Following the symposium, a Task Force was organized with leadership provided by the Director of Education of the Department of Mental Hygiene. Representation included the two State Departments, the American Occupational Therapy Association, the National Child Labor Committee, and the Consortium.

Following a series of intensive meetings, recommendations for modification of the Career Ladder were formulated by the Task Force. Before the recommendations could be forwarded to the Department of Civil Service, the Director of Personnel for the Department of Mental Hygiene had to approve them. This approval was obtained after another series of meetings and a letter from the Personnel Director was sent to the Department of Civil Service recommending the changes proposed by the Task Force.

A major problem in the acceptance of the practices suggested in this letter was the impact of the Career Ladder modifications on Career Ladders in physical therapy and speech and hearing therapy. Each of the other therapies is modeled along the same line.

The American Occupational Therapy Association played a significant role in supporting the suggestions and offering consultation in formulating the recommendations.

A major problem in gaining approval of these recommendations is the slowness of the Department of Civil Service in responding.

In April, 1976, with the passage of the O.T. licensure law, significant changes in the Career Ladder were mandated, most of them following the suggestions of the Task Force.

Arbitrary credit requirements and irrelevant classwork were eliminated and more rational means for mobility up the ladder established. The work of the Task Force was very much aided by the passage of the law.

Objective 8 - To recruit eighty hospital employees to the COTE program, sixteen each year for five years, four from each of the four participating hospitals.

The original plan for each of the four state hospitals in Rockland County to release four employees each year for five years has been modified by the grantor, the state hospitals and the grantee.

- The grantor cut back the demonstration to four years
- The grantee replaced the Associate degree program with a certificate program. However, New York State passed legislation under which O.T.s are licensed. The licensing board is requiring an Associate degree from practicing COTAs. Therefore, COTE trainees who finish the certificate program and return to work will be offered the opportunity to complete the AAS degree (an additional 12 credits) in additional time off the job

. Modifications by the hospitals.

The recruitment and status of all trainees is as follows:

1) Helen Hayes Hospital reserved only four trainee positions in any one year for the program. If the four employees released for training in the first year had remained in the program for the four years, Helen Hayes Hospital would have only those four employees trained by COTE at the end of the demonstration instead of the sixteen projected in the proposal.

. 4 entrants in September, 1973 by HHH

1 completed the AAS degree program and the Junior year of the CUNY-BS program in O.T. He will continue in the program for his Senior year and the B.S. degree.

2 completed the AAS degree program and are COTA's.

1 dropped out of the program in March, 1974 for health reasons.

. 1 entrant in September, 1974, to replace the employee who dropped out of the program in March. She completed the AAS O.T. assistant program in July, 1976.

. 1 entrant in September, 1975. She completed the certificate program in July, 1976.

2) Letchworth Developmental Center entered four employees the first year, six in the second, five in the third, and three in the fourth year of the COTE program.

. 4 entrants in September, 1973 by LDC

2 completed the AAS degree program and entered the CUNY-BS program in O.T. They have completed the Junior year and have entered their Senior year.

1 completed the AAS degree program and resigned from the hospital to marry and relocate in another state.

1 resigned from the program in January, 1975 because of health problems in his family.

. 6 entrants in September, 1974

2 completed the AAS degree program in July, 1976, are COTA's and are returned to work.

1 completed the AAS degree program, is a COTA and will continue training in the CUNY-BS program.

1 resigned from the program in the first semester because of ill health.

2 were dropped for poor performance.

. 5 entrants in September, 1975

1 completed the certificate program in July, 1976 and will continue training in the CUNY-BS program in O.T.

3 completed the certificate program in July, 1976, are COTA's, and are returning to work.

1 resigned from the program.

. 3 entrants in September, 1976

3) Rockland Children's Psychiatric Center entered four employees for each of the first three years and 2 employees in the fourth year.

. 4 entrants in September, 1973 from RCPC

1 completed the AAS degree program and the CUNY-BS program in O.T. He is eligible to take the next AOTA registration examination in January, 1977.

2 completed the AAS degree program, are COTA's and have returned to full-time work.

1 completed the AAS degree. She returned to work for one year and will enter the CUNY-BS program in September, 1976.

. 4 entrants in September, 1974

2 completed the AAS degree in July, 1976, are COTA's and have returned to work.

1 required additional time in clinical training and is expected to finish the course in September, 1976. She would then be a COTA with an AAS degree.

1 completed the AAS degree in July 1976, is a COTA and will enter the CUNY-BS program in September 1976.

. 4 entrants in September 1975, the certificate program

2 completed the certificate course in July 1976, are COTA's, and have returned to work. One of these employees had enough college credits to earn the AAS degree.

1 required additional time in clinical training and is expected to finish the course in December 1976. She will then be a COTA.

1 was dropped because of poor performance.

. 2 entrants in September 1976, the certificate program

4) Rockland Psychiatric Center entered four employees each year for two years and none in the third year or fourth year.

. 4 entrants in September 1973 from RPC

2 completed the AAS degree program and the CUNY-BS program in O.T. They are eligible to take the next AOTA registration examination in January 1977.

2 completed the AAS degree and are COTA's. They returned to work full-time.

. 4 entrants in September 1974

3 completed the AAS degree program and are COTA's. They have returned to full-time work. Two of these employees were accepted in the CUNY-BS program but the RPC administration did not permit them to continue in the program.

1 required additional time in clinical training and is expected to finish the course in September 1976. He will then be a COTA with an AAS degree.

5) Wassaic Developmental Center entered four employees in each year in 1975 and 1976.

. 4 entrants in September 1975

4 completed the certificate program in July 1976, are COTA's, and have returned to full-time work. They will continue to the AAS degree on their own time.

. 4 entrants in September 1976 will take the certificate course

6) Harlem Valley Psychiatric Center

. 2 entrants in September 1976

TABLE 2.

Percent of Participation of Consortium Members in Training Program (N = 56)

Psychiatric Centers		42.9
Rockland Children's Psychiatric Center	25.0	
Rockland Psychiatric Center	14.3	
Harlem Valley Psychiatric Center	3.6	
Developmental Centers		46.4
Letchworth Developmental Center	32.1	
Wassaic Developmental Center	14.3	
Physical Rehabilitation Center		10.7
Helen Hayes Hospital	10.7	

As can be seen in Table 2, the Consortium members participated in COTE unequally. Helen Hayes Hospital is a smaller facility and could not enter the same number of employees into the program. Rockland Psychiatric Center is a large facility, but the administration opted not to participate after the first two years. Wassaic Developmental Center and Harlem Valley Psychiatric Center joined the Consortium two years and three years, respectively after its inception.

Objective 9 - To develop a program model which can be replicated efficiently in a variety of institutions and in different localities.

Many aspects of the Consortium structure suggest that replication of the Consortium model has potential for utilization by various State of New York Departments in disciplines other than occupational therapy. The replication of the Consortium model depends on several factors such as the availability of knowledge about the experiment; working out technical problems which are inherent in the design of the Consortium such as the use of project preceptors rather than state preceptors; and funds for release time for training at a time when budgets are being cut.

There is a possibility that the State of New York will initiate a program for O.T. certification for present personnel because of regulations included in the new O.T. licensure law. This law requires certification by the American Occupational Therapy Association for continued practice and movement up the career ladder. Of course large numbers of state personnel already employed will be "grandfathered" in, but future personnel will require the credentials. It is apparent that the demand for such certification will stimulate the development of college programs, and may encourage the State to develop educational programs within the Departments of Health and Mental

Hygiene. Such an undertaking would require replication of structural relationships which have been instituted by the Consortium including arrangements with colleges for accreditation of work and course work, fieldwork evaluation and acceptance, and a means to acquire the required technical and liberal arts courses.

Our experience suggests that several aspects of the project warrant replication as a means of further developing the model and substantiating our findings.

The use of the Consortium model as a paradigm for structuring institutional relationships offers much potential. New credit, cost and staff-sharing relationships between Rockland and Dutchess Community Colleges also warrants replication, as does the curriculum which represents an important step forward in development of competency-based education.

The probability of continuation or replication must be discussed from the standpoint of the three major institutional systems involved in the project:

1. the baccalaureate educational system involving the City University of New York.

2. Rockland Community College and its offering of the associate program and certification and,

3. the standpoint of the State hospitals themselves.

A major consequence of the budget crisis affecting the City of New York was the decision to discontinue efforts to develop an occupational therapy baccalaureate program within the College of Health Sciences at Hunter College of the City of New York. Project planners and Hunter College officials were convinced that the development of an occupational therapy sequence was a needed and appropriate action for Hunter College and that the COTE program offered a natural avenue for the development of that curriculum. Shortly after implementation of the program began it became apparent that the funds necessary for developing the O.T. school following the completion of the project could not possibly be made available to Hunter because of the diminishing scope of college operations in the City of New York. Paralleling the budget crisis was the opening of an occupational therapy school at York College of the City of New York. These two developments played a significant role in convincing college officials of the limited potential for state and other approval for the development of the Hunter O.T. sequence.

The decision to move the program to the CUNY Baccalaureate framework which is an external degree program, clearly means that continuation from the standpoint of the City University system is not possible at present.

However, there is an excellent chance for the continuation of the curriculum at Rockland Community College once we have completed our work. In fact, Rockland Community College has received approval from the State Department of Education for the Associate degree sequence at the school. At the present time, Rockland Community College plans to continue to offer the O.T. sequence after the end of the project.

An important ancillary development has been the establishment of the cooperative relationship with Dutchess Community College.

It was learned that the problem of recruiting occupational therapy personnel was severe in other parts of the State to an extent that hospital directors were willing to join the Consortium. It was decided to develop a facet of the Consortium in an area 60 miles north of Rockland County.

Dutchess Community College, a part of the New York State system, indicated an interest in participating in the Consortium and a willingness to cooperate in a new program of education even though the degree would be awarded by Rockland Community College. Thus, a cooperative alliance of two Community Colleges has been established involving Rockland and Dutchess Community Colleges. Under the terms of this arrangement, Dutchess Community College will teach courses to students of the Consortium who live in Dutchess County but who are registered students at Rockland Community College. Occupational Therapy theory and skill courses will be offered by Rockland Community College in the Dutchess County area making it unnecessary for Dutchess students to commute to Rockland Community college for class work.

To facilitate this arrangement, Wassaic Developmental Center has placed 4 students in the project, beginning in September 1975, and has contributed a half-time clinical instructor who will act as the on-site educator representing Rockland Community College. This preceptor teaches the O.T. theory and skills courses. Another State hospital in Dutchess County, Harlem Valley Psychiatric Center, placed two students in the COTE program in September 1976.

An extremely important aspect of this relationship is a willingness of the colleges to work out the financial arrangements necessary for reimbursement of one college by another and for acceptance of college credits by one school for work taken at the other. This configuration is not only unique in the New York State area but helps to establish a precedent in the education of occupational therapy assistants which ultimately could result in an alliance of three, four, or more community colleges stretching from New York City through upstate New York.

The movement of the Consortium into a Northern County requires the development of a mini-Consortium in that area which has all of the aspects of the original organization. This means that in addition to the core hospital, Wassaic Developmental Center, locations are needed for exposure to psychiatric patients and patients with physical disabilities.

Three hospitals form the triangular relationship upon which students receive their education. Wassaic Developmental Center becomes the location for exposure to retarded persons. Harlem Valley Hospital becomes the location for working with psychiatric patients. These two facilities are operated by the State Department of Mental Hygiene. The third hospital is the Veterans Administration's Castle Point Hospital in Beacon, New York. With the involvement of Castle Point Hospital a new aspect of the Consortium's development is thus opened up.

The movement of the Consortium to the Northern County does create some locational problems and many logistic difficulties have to be worked out before the new activities can be set in motion. In addition to the college precedent, however, the development of the relationship between State and Federal hospitals in this Consortium also is precedent-setting.

Some of the unresolved problems in setting forth this activity are related to the approval of the curriculum by the American Occupational Therapy Association, the acquisition of appropriate staff to do on-site clinical education at Castle Point Hospital, and the substantial work-load being placed upon the preceptor who must also play the role of college coordinator in the Dutchess County area.

It is apparent upon reconsideration of the objectives that to some extent, objectives of the program came in conflict with each other. For example, it soon became clear that in a program of this kind, great flexibility is needed in the offering of course work in order to accommodate the educational capacities of participants which vary greatly because of their experience, background and number of years out of school. Despite this need, however, community colleges displayed an inability to respond flexibly in the required fashion. This was the result chiefly of rigid college course structure and timing which could not be modified. In a program which called for doing it better, faster and more efficiently and more sensitively with regard to the needs of the students, this impediment became an important stumbling block to the reaching of objectives.

PUBLIC HEALTH NURSING MODEL

A. Introduction

When we first considered this occupation, there was a documented national shortage of nurses. As the design was developed, there was some doubt as to the degree of the shortage. However, it was felt that passage by Congress of a national health-insurance program could lead to a vast increase in demand, particularly in New York City.

While there was some question about shortages of registered nurses, there was no question about the need for Public Health Nurses, who have education and training beyond that of registered nurses. Under state regulations, Public Health Nurses are required to have a baccalaureate degree in nursing, pass the New York State examination as Registered Nurses, and complete at least one scholastic year (30 credits) of training in an approved public health nursing program.

Public Health Nurses provide care, as prescribed by physicians, for patients in clinics and in their homes; teach health maintenance, including nutrition, to patients, families and community groups; work with community leaders, teachers, parents and physicians, in community health programs and in schools.

The New York City Health Department has never been able to obtain enough Public Health Nurses for the city's school-health programs. Planned expansion of community health facilities aggravated the public health nursing shortage.

Below the Public Health Nurse on the career ladder is a Staff Nurse--a registered nurse without the special public health training. The Staff Nurse can administer medication and treatment prescribed by physicians; observe, evaluate and record symptoms, reactions, and progress of patients; and perform other duties concerned with the care and prevention of sickness and injury in the promotion of good health. The Staff Nurse is required to have completed an approved nursing program and pass the State registration examination.

To compensate for the acute shortage of Public Health Nurses, the Health Department created the position of "Junior Public Health Nurse," with duties similar to but less responsible than those of the Public Health Nurse. Junior Public Health Nurses are registered nurses who cannot advance to Public Health Nurse without obtaining additional education.

The shortage of Public Health Nurses was so great in New York City schools that "Public Health Assistants," high school graduates with one year of experience in a medical setting, are employed to relieve Public Health Nurses of functions not requiring professional knowledge and skills. Some assistants were Licensed Practical Nurses who wanted the regular working hours in the Health Department and who preferred public health work to bedside nursing.

When we began our investigation of the field, there were 600 assistants serving in the city's public schools and health stations. They registered patients, scheduled apointments recorded laboratory and medical reports, cleaned and

sterilized instruments and trays, assisted in the preparation of patients for examination, assisted the physically handicapped and provided escort services when needed.

These professional employees of the New York City Department of Health were predominantly black and Puerto Rican household heads from poverty areas. They were capable workers whose insights into community problems were an asset to the health stations. They had no promotional opportunities except through the Civil Service clerical examinations. Success in these effectively removed them from the public health nursing field.

Most assistants wanted to stay in nursing--more than 56 percent expressed interest in participating in an upgrading program. But most also had families and could not afford to quit work to go to school. About 20 of the 600 PHAs attended evening courses in 1970. Only one or two of the city's nursing schools offered evening courses, and these placed heavy scheduling burdens on family heads.

The field of public health nursing seemed to offer an excellent opportunity for model development: There were acute shortages at the professional level, there was a large group of paraprofessionals employed with no opportunity for reaching the professional level, and there were several ways to obtain the professional credential.

B. Development of the Model

In November 1970, we met with officials of the New York City Health Department. They were ready to consider collaboration with NCLC for career development in several occupational areas. After four months of consultation and an examination of personnel requirements, promotional practices, credentials, and career-ladder planning, the first choice of both the Health Department and NCLC was public health nursing.

At this point there was a freeze on hiring and the Health Department could not replace Public Health Nurses and Junion Public Health Nurses lost through attrition. The freeze, however, did not affect upgrading employees to higher level positions.

Before making its decision, NCLC consulted with New York State licensure officials and National League for Nursing staff. They encouraged and referred us to recent policy statements urging greater recognition of students' prior education and experience. Both agencies offered names of local nursing educators who would be receptive to our model.

The Dean of the Hunter College School of Nursing agreed to help NCLC establish a coalition of representatives of the Health Department, the union representing the assistants, the city's Health and Hospitals Corporation, the New York City Personnel Department, and the nursing departments of several CUNY colleges.

The coalition's investigations and discussions resulted in:

--An agreement that an articulated program from Public Health Assistant to Junior Public Health Nurse to Public Health Nurse was both desirable and feasible.

--A commitment from the Health Department to establish a special training center for the project.

--Determination that assistants wanted to participate in an upgrading program.

--A commitment from the Health and Hospitals Corporation to make available its facilities for in-hospital clinical experience.

--A commitment from the union to help with the funding.

What appeared to be a major hurdle, the fear that state licensure officials would not approve a work-study model as an alternative to existing routes to credentials, was overcome. A follow-up meeting of coalition representatives with the Secretary of the State Board of Examiners for Nursing established that this would not be reason to disapprove a program which met state standards for educational content and instructional quality.

As a direct result of the coalition's work, an agreement between NCLC and the Health Department was reached. The Health Department and NCLC agreed to:

--Develop and establish a program to provide career progression from Public Health Assistant to Public Health Nurse, while employees remain on Health Department payroll at full salary.

--Develop a work-study model for traing Public Health Assistants, based on the knowledge and skills required to perform competently at higher levels, to permit Public Health Assistants to assume responsibilities and gain experience which could be credited in the educational program.

--Obtain an academic collaborator willing to establish a nursing program which would credit knowledge and skills, combine academic instruction and practice, credit work experience, and use qualified members of the Health Department's staff as clinical instructors.

The Health Department undertook an analysis of public health nursing tasks in four health districts which encompassed prototypes of all programs and poulations served by its Bureau of Public Health Nursing. The analysis was conducted by the Bureau's Associate Director assisted by an experienced consultant. NCLC paid consultant costs of the task analysis.

The objectives of the analysis were to identify duties performed at each level and the skills required to perform these duties, and to reallocate duties to maximize utilization of skills.

A committee consisting of supervisors, Public Health Nurses, Junior Public Health Nurses and Public Health Assistants in the four districts was organized to oversee the job analysis.

Selected staff in each district were asked to maintain logs of their activities in one calendar week; lists of tasks they performed were compiled from these records. New job descriptions were completed for each level, but redistribution of tasks was held up as problems emerged with obtaining an academic collaborator.

The coalition decided that we should seek a two-stage college program: the first stage, an associate degree, and the second stage, an articulated baccalaureate degree. Completion of the first stage would permit students to take the State examination for Registered Nurse. If successful, they would move from Public Health Assistant to Junior Public Health Nurse. On completion of the second stage, students would move to Public Health Nurse.

With the help and advice of the coalition, we concentrated our efforts on units of City University of New York. This decision was made because of lower costs at a CUNY college and easier transferability of credits between two- and four-year colleges. However, CUNY's open-enrollment policy,* adopted in 1970, overtaxed its colleges' nursing education capacities and decreased their ability to support new adult programs. Sharp cuts in City and State higher-education budgets made the fiscal situation even worse.

Our search for a two-year college consumed over 15 months. We were well along toward agreement with one college when, in June 1971, the head of its nursing department decided that problems including student unrest, difficulties caused by the influx of new students, and demands on department staff to strengthen existing curricula, were too great to take on further responsibilities.

Negotiations were undertaken with an institution about to launch a nursing program. It had the advantage that it was the only school authorized by CUNY to offer both two- and four-year courses. Despite the college's interest, negotiations were broken off because it did not have a nursing director on staff; there was a substantial backlong on the nursing waiting list; and the faculty wanted to use an already designed curriculum.

Another CUNY community college was interested, but a change of presidents and nursing personnel changes, prevented NCLC from negotiating with the college until January 1972, when the college employed a director for its nursing program. A written commitment was obtained in March, 1972.

We approached three CUNY senior colleges and two private senior colleges. Interest was expressed by all five but all had problems which prevented us from concluding negotiations. Among the problems were: funding, administrative turnover, curriculum demands with higher priorities, and resistance on the part of some faculty members to involvement in new programs and approaches.

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*Open enrollment entitles anyone who graduates from a city high school to enroll the following year in a CUNY college.

C. Funding

With the help of the coalition, a formal proposal was prepared and submitted on January 15, 1972, to the National Institutes of Health, Bureau of Health Manpower Education, Division of Nursing, for a five-year special project grant in the amount of $1,250,972. Formal commitment from the community college was not obtained in time to include in our proposal.

In mid-June 1972, we were notified that the application had not been approved. The lack of academic collaborators was the main reason; the grant review committee would not recommend the project without a specific commitment from nursing schools.

We were advised to resubmit the proposal for the October 15 review date, if we had obtained academic collaborators. July and August were devoted to attempting to identify a senior college collaborator, without success. In September, the community college informed us that it would be unable to keep its commitment because more than half the nursing faculty had resigned. In consultation with Health Department officials, we tried to find another college collaborator, but were unsuccessful.

D. Conclusion

At the time we ceased work on this model, colleges were graduating nurses who could not get jobs. While the Health Department's need for nurses was as severe as ever it could not hire the new graduates. The nursing schools, overcrowded and with long applicant waiting lists, and unable to place their graduates in jobs were loath to enter into special programs. In addition, many of the nursing programs in community colleges were so new that their staffs were cautious about trying new approaches.

Reluctantly, we were forced to forego further developmental work on the nursing model.

Shortages in an occupation are not enough to assure acceptance of new training approaches. Our error was in not obtaining commitment from a nursing school before developing the model. We should not have proceeded after gaining Health Department collaboration until a college collaborator had been secured. We were seduced by our own success in other projects and our desire to submit a proposal in time to meet the funding agency's deadline.

TEACHING MODEL

A. Introduction

When NCLC investigated teaching as a potential occupational area, supply and demand in the field indicated the paradox of a nationwide easing of the teacher shortage, coupled with a severe teacher recruitment problem in urban ghettos. The 1970 Occupational Outlook Handbook stated: "The number of qualified teachers may exceed openings if present enrollment projections and trends in number of newly trained teachers continues." The national need was estimated for 56,300 teachers each year to 1980. In New York City, however, with three percent of the nation's population, the need was estimated at 6,850 new teachers a year, more than 12 percent of the national need.

The prime cause of New York City's teacher shortage was the high turnover of staff in ghetto schools. It was no coincidence that the areas with the highest teacher turnover rates were also those with the highest unemployment levels. Poverty programs, and particularly Title I of the Elementary and Secondary Education Act, attempted to confront these problems by funding programs for teacher aides in low-income schools. There were approximately 6,000 paraprofessionals working in New York's public schools, most of them employed under ESEA Title I funds.

The New York State Division of Teacher Education and Certification was sponsoring pilot programs, initiated by coalitions of interested school-related groups, to develop competency-based training and credentialing programs for teachers. Such coalitions included local school boards, teacher training institutions, professional school staff, student teachers, and local teacher organizations (i.e., unions). The participation of other interested community groups was encouraged.

To conduct a pilot project, a coalition had to: (1) determine the kind of teachers the local community wanted in its schools; (2) define the outcome of a training program, with as many alternatives as possible to meet the stated goals; and (3) design and implement a training program.

There were few data for designing a competency-based teacher training program other than data derived from traditional programs and experience with student-teacher courses. New kinds of training and educational programs were necessary if competency-based credentials were to reflect competency and not merely a new way for presenting traditional programs.

A further thrust for a new program came from the needs of the 6,000 paraprofessionals in the New York City School system for whom the traditional program was totally inappropriate.

B. Development of the Model

Teaching was selected as an occupation despite the national surplus of teachers because: (1) the New York State Education Department mandated that teacher

preparation programs move toward competency-based curricula; (2) there were shortages and high turnover rates of teachers in many New York City school districts; and (3) there were 6,000 dead-ended paraprofessionals in the New York City system.

In the fall of 1970, we met with the Director of the New York City Board of Education Auxiliary Educational Career Unit, to obtain information about career advancement opportunities for paraprofessionals. Advancement was dependent upon completion of traditional academic courses with no credit given for work experience. Paraprofessionals could pursue part-time study and be reimbursed for up to 18 college credits a year. In some cases, they might be given a one-year sabbatical for study.

Next, we attempted to identify a local school district which met NCLC's criteria for employers and the State's standards for developing competency-based programs. Efforts were greatly complicated by the fact that school decentralization was just taking place and the newly created local school districts needed time before they could consider collaboration with NCLC.

By the ned of 1970, we identified three districts interested in participating in our design. One was in a middle-class area of Queens and was not appropriate for the project. The second, in Manhattan, terminated negotiation when other higher-priority demands were made on it. The third, a Community School District in Brooklyn, was looking for ways to speed teacher preparation for its paraprofessionals. By April 1971, NCLC had a verbal commitment for collaboration from the District Superintendent. For nine months we worked with district staff on developing the model and obtaining college collaboration and funding. In January 1972, relations were severed with the district when we realized that the Superintendent would consider implementing the model if it met certain non-educational objectives of the local school board.

NCLC staff subsequently met with representatives of seven other districts. Some proved unsuitable because of internal problems and tensions. Others were uninterested because they were fearful of hiring teachers without city licenses. Community School District #9 (Bronx) was finally selected because of its receptivity to NCLC's design and its reputation for action in line with its convictions. State certification officials encouraged us to consider District #9, and we quickly worked out a formal agreement with the district superintendent. We worked with District #9 until July 1973, in developing the model.

Community School Board elections were held June 1, 1973, in New York City. The majority of the incumbents of School Board #9 were not reelected and the District Superintendent left after July. The new administration did not feel it was in a position to undertake the project because of unrelated internal conflict. The state of completion of the model permitted us to go to school district #8 and obtain rapid agreement for collaboration.

While negotiations were in progress with the school districts, we held discussions with eight different colleges. At one, considerable interest was shown by administrators of the school of education, but little interest by libral-arts administrators who controlled the degree requirements. A second was unready to change its accrediting methods to include assessment of knowledge gained

outside conventional courses. A third, located out of New York City, offered to consult in the development of the model but could not afford to initiate an independent program in New York City.

A fourth offered to include enrollees in teacher-education courses then available, but said further curriculum changes would be too costly to plan and operate. A fifth showed interest in working toward a flexible teacher-education curriculum, but had reservations about the academic backgrounds of the prospective students and suggested that the paraprofessionals attend a community college before enrolling in a four-year college. A sixth considered collaboration with NCLC but decided that its teacher education program was insufficiently staffed. Negotiations with two other colleges were halted when relations with the Brookly school district were severed.

When agreement was reached with district #9 in the Bronx, NCLC staff explored collaboration with three colleges in the City University of New York system. A preliminary visit to one of the colleges did not encourage further discussion. At a second we found considerable interest, but officials of its school of education informed us that because of budget cuts, no staff member could be made available to work with NCLC until the spring of 1973.

We finally were able to obtain the cooperation of the Bernard M. Baruch School of Education, which agreed to become the academic collaborator. As the college was conducting a career ladder program for bilingual professionals in one of the local school districts in Manhattan, the faculty had experience with the type of problems that the NCLC model presented and were eager to develop a competency-based model.

NCLC provided Baruch with a $5,000 development grant to pay for staff time in developing the design.

Starting in June 1972, two Baruch College representatives worked with NCLC on developing a proposal for the classroom teacher project.

Cutbacks in Federal Government and Foundation funding hampered our efforts to obtain the amounts necessary to operate and evaluate the model. We therefore developed a number of alternative funding strategies. We gave up looking for a single funding source, and sought support from a variety of sources, each of which could fund portions of the project. We were assured funds to pay for 18 credits a year for project participants from the Board of Education - United Federation of Teachers union contract. The Baruch School of Education had received a grant of $20,000 from the City University of New York to develop the curriculum. We then attempted to obtain a small grant to develop the research and evaluation components.

C. The Model Design

1. Overview

NCLC collaborated with Bernard M. Baruch School of Education and Community School District #9 (Bronx) in designing a five-year program to upgrade classroom paraprofessionals to certified teachers. This was modified on the basis of our

relationship with school district #8. The model based teacher education on identified teacher competencies and classroom behaviors derived from pupil-learning objectives, and built on the knowledge and competencies of paraprofessionals. Pupil learning objectives were to be developed jointly by representatives of the community, the school district and the college. The model integrated learning and work more closely than existing teacher preparation programs. It would have provided a well-defined and shorter route for paraprofessionals to advance to professional status, and a unique experience for a group of classroom-based teacher-trainers.

The model design included as basic research elements: (1) developing and testing criterion measures to assess teacher competencies; (2) constructing and testing new pupil performance measures; (3) developing and testing techniques for assessing the effects of changes in management and administrative structure; and (4) constructing and testing assessment procedures for determining advanced standing, exemption from individual courses, and credit for work experience.

Thirty paraprofessionals a year for three years, selected from schools in district #8, would be enrolled at Baruch College in an integrated program of education, training and work experience, leading to State certification as early childhood teachers. The fourth and fifth years of the program were to focus on evaluating the overall effectiveness of the design.

This design changed credentialing emphases from passing college courses to demonstrating classroom competency. A teaching center was established within the district by the college to provide a laboratory for classroom teacher-trainers, paraprofessionals, and student teachers to observe, discuss, and try out new teaching methods. The design combined both campus and worksite. The liberal arts sequence was to take place mainly on campus and the professional sequence mainly at the worksite. The concentrated professional learning was to take place at the worksite, in real classrooms with children, under the guidance of classroom teachers, supervised by college faculty. The classroom teacher-trainers, recruited from schools in the district, would have obtained adjunct faculty status and would have been enrolled in a master's program at Baruch.

Although the target population in this model was the employed classroom paraprofessional, the model had application for all students preparing for careers in teaching. Teachers prepared by this method would reach a higher degree of competence, more rapidly than in traditional methods and would be better equipped to meet the educational needs of changing pupil populations.

2. Parity Board

A Parity Board was organized, composed of representatives of the college, school district, NCLC, principals, teachers, paraprofessionals, parent associations, union, and the community at large. The Board was responsible for identifying pupil learning objectives for early childhood classes in the district, overseeing the identification of teacher competencies, and supervising the design, implementation and assessment of the project.

3. Employing Agency

Community School District #8 (Bronx) was to serve as the demonstration laboratory. District #8 was a designated poverty school district, and all of its schools received ESEA Title I funds. The paraprofessionals, the teacher-trainers and the participating schools, were to be selected from the district. Community representation would have come from interested residents and parents in the district. The district designated two of its schools as teaching centers. The district also made a commitment to hire graduates of the program as teacher lines became available.

4. Academic Institution

The Bernard M. Baruch School of Education of the City University of New York had major responsibility for designing the curriculum, training processes, and assessment tools required. The college would conduct an on-going evaluation of process and content.

5. Trainees

Paraprofessionals were to be selected from participating schools in Community School District #8 on the basis of interest, recommendation of superiors, and eligibility for admittance into college. To meet the immediate needs of the district, the first year enrollees would be paraprofessionals who already had some college credits and who had demonstrated classroom competency. The college would enroll them in an existing baccalaureate program adapted for their educational needs, utilizing the new design to the extent possible. The program was expected to halve the time needed to become certified teachers. The first group of trainees would have been used to test and revise competency measures for subsequent groups.

The second and third year enrollees were to be a mix of paraprofessionals at various steps on the career ladder, who would be prepared for a baccalaureate degree and teacher certification in the new competency-based. model.

6. NCLC

The National Child Labor Committee was to serve as the catalytic agency and sponsor, to coordinate, facilitate, monitor and audit the demonstration project. It would offer technical assistance, conduct the overall program evaluation, and provide fiscal management.

7. Union

The United Federation of Teachers, which represents both classroom teachers and classroom paraprofessionals, had been kept informed of our actions and its advice had been sought concerning specific planning.

8. Curriculum

The curriculum was to be based on identified teacher competencies derived from pupil learning objectives. Once the pupil learning objectives were determined, task analysis would be undertaken to identify teacher tasks and related competencies and the effects of teacher classroom behavior on the achievement of classroom objectives. A team of college educators, school principals, teacher-trainers, and community people would make the initial definition of teacher competencies based on the data from the task analysis, an analysis of the literature, and an analytic projection from the pupil learning objectives. This definition of teacher competencies would be reviewed by independent educational experts, the union, and the Parity Board. Periodic task analysis of the work of classroom teachers would be used to evaluate the changing roles and progress of both paraprofessionals and teacher-trainers. As measures of competencies were developed and tested, relationships would be sought between specific competencies and constellations of competencies, and between these and pupil learning. Feedback from these studies would be used to refine the competency-based teacher training curriculum.

9. Evaluation

a. Videotape samples to be used for self-guided analysis by paraprofessional student-teachers and the teacher-trainers.

b. Competency assessment data would periodically be made available to the Parity Board to gauge pace and direction of the new teacher-preparation curriculum.

c. Pupil progress toward learning goals would be assessed.

d. Recorded experiences and masured performance by students, teacher-trainers, administrators and others would be used to refine the program during the field trial.

After one semester of the field trial, there would be a brief preliminary evaluation to help the Parity Board make decisions on possible needed revisions. There would be a full-scale evaluation at the end of Year 2, after one calendar year of field trial of the new model. Evaluation institutes would be held in the summers following Years 3 and 4. Final evaluation and report would be completed at the end of Year 5.

D. Conclusions

The major delays in the development of this model resulted from our inability to obtain employer and college collaborators quickly. The false starts seriously affected our ability to obtain funding. The climate was much better for funding in 1970, 1971, and the beginning of 1972, than it was later. Had we obtained collaborators earlier, it is possible that this program would have become operational. This design was an ambitious one, and necessarily so, for if competency-based education was to have validity, it had to be rigidly tested and should also produce teaching results that are better than those yilded by existing models.

The instruments which would have been developed in this program would have been useful for other educatiors and school districts. This model was a step in the direction of extending modular and programmed learning systems, which were developed for children and adults, to the training of teachers.

Much time, money and energy went into the theoretical research. It was time for a test run. Our model could have demonstrated that competency-based education is a possible answer. It was dependent on the goals set for the children; goals set by parents, educators, and communities. We do not presume that a set of competencies specified for a school district in New York City could be used without modification in Appalachia, Chicago, Denver, or even another district in New York. Approaches, styles and goals differ from place to place and teacher competencies must be tied to the specific pupil learning objectives for a given group of children in a given area. We do believe, however, that all children have certain basic needs in common, and this belief will hold anywhere in the world. The teacher competencies developed could have universal application where common teaching skills are needed to meet common pupil learning objectives for any group of children.

Unfortunately, a severe budget crisis in New York City led to the eventual layoff of almost all of the paraprofessionals working in the schools, leaving us with no training group. Efforts to implement the model therefore ceased, and NCLC turned its attention to other occupations.

END